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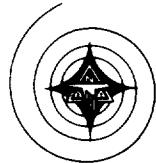
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APOLLO WIND TUNNEL  
MODEL NOMENCLATURE  
NAS9-150



Reissued July 1964

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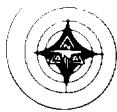
## FOREWORD

The Apollo Wind Tunnel model nomenclature was prepared under NASA Apollo Contract NAS9-150 and represents a compilation of descriptions of all model components tested under this contract.

In order that this report may contain an up-to-date list of model nomenclature, it will be revised semi-annually to incorporate additional nomenclature assigned for wind tunnel tests conducted during the interim.

This report was prepared by the Experimental Aerodynamic Group, Space and Information Systems Division.





## ABSTRACT

The model nomenclature symbol, description and sketch, model designation, test number, pretest and data report numbers, and model drawing number are given for each model component tested.





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## INTRODUCTION

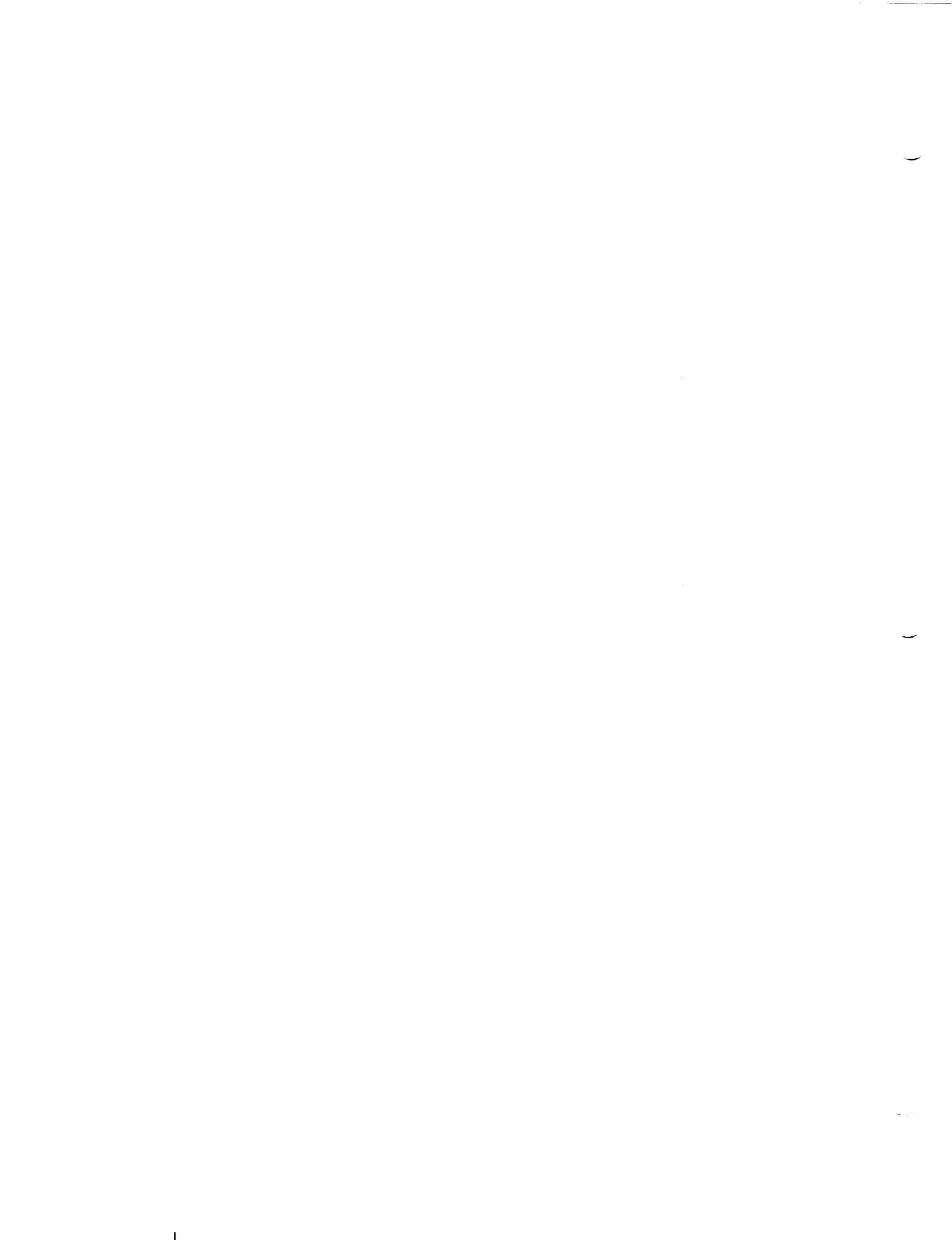
Development of the final configuration of an air vehicle requires wind tunnel tests of a basic configuration and extensive retesting of many modifications. This test, modify, and retest process results in the construction of many models with numerous modifications usually to a local area or a component of the configuration.

To prevent complete chaos, a system for keeping records is required to identify, categorize, describe, and reference each model component tested. The language of model nomenclature has grown from this requirement.

Model nomenclature is a catalogue of designations that describe the model configuration, and in which, the configuration is divided into components (escape motor, tower structure, command module, etc.) and a letter is assigned to each component. During the early stages of Apollo nomenclature, the first letter in the name of the component (e.g., C for command module, E for escape motor) was used to provide quick association of the designation with the component. As the catalogue progressed and more components were added, it became necessary to assign letters arbitrarily.

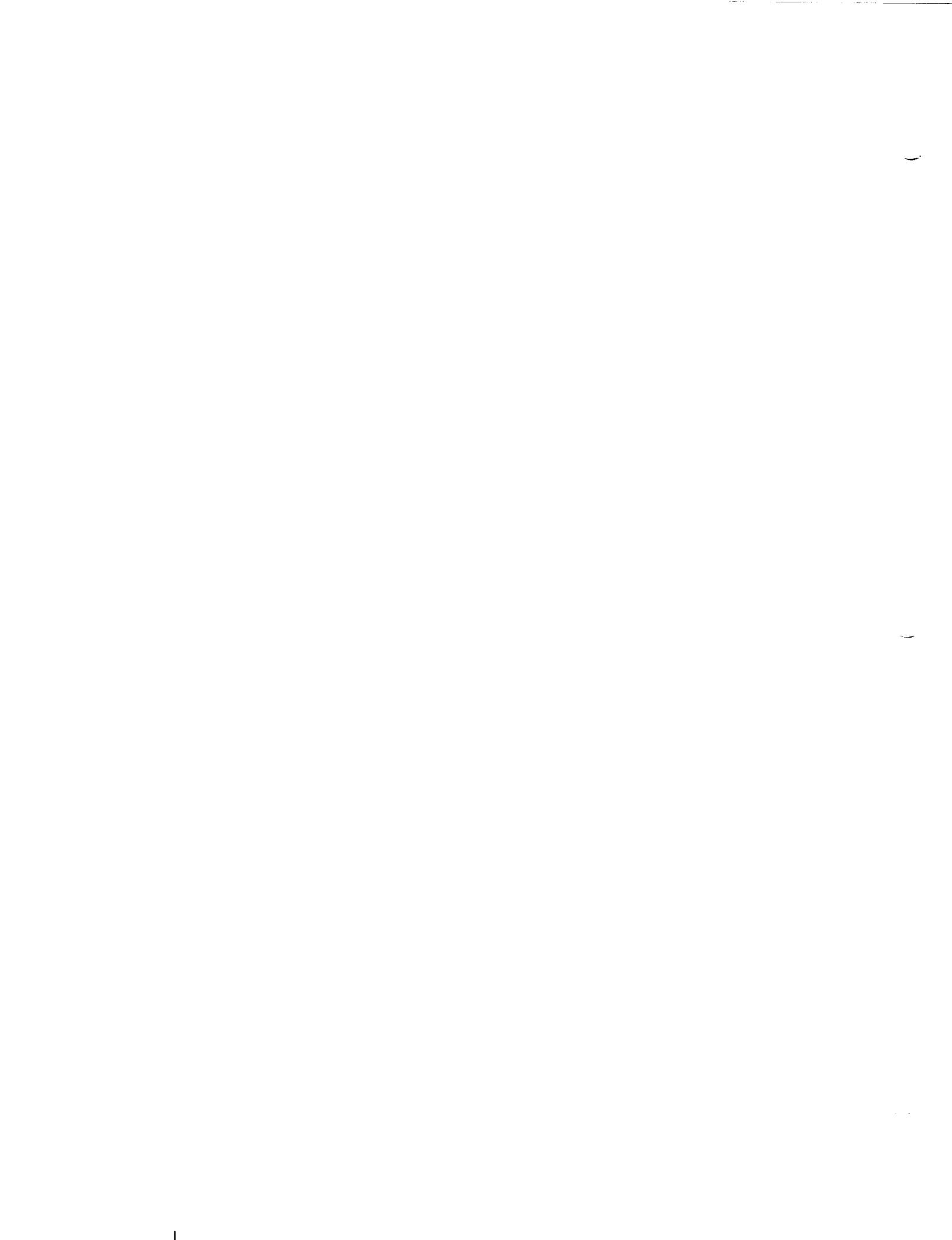
In Apollo model nomenclature, a number follows the designating letter to indicate a change in that component. For example, C<sub>2</sub>, C<sub>3</sub>, and C<sub>4</sub> designate three different command module configurations. The nomenclature designating a component is the same for force, dynamic stability, pressure, and heat transfer models if the external geometry is the same; and model scale has no effect on the assignment of the nomenclature.

In addition to assigning a separate symbol or letter to each major component of the configuration, it is sometimes desirable to assign a letter designating a minor component, such as the command module spoilers (L) or the reaction control motors (R). Such minor components, although attached to a basic component, are separate external shapes and are subject to many design changes. It is preferable to indicate these changes with a separate symbol than to change the basic component symbol because the number of indicated modifications to the basic component are less. Originally, designation was changed when spoilers were added, but later, when it became apparent that many spoiler configurations would be tested, a separate symbol (L) was assigned to the spoilers.





An exception to this philosophy has been applied in the case of the boosters. A single letter has been assigned to designate the entire booster configuration. Any change in the booster configuration, even if only to one of the protuberances, results in a change in the booster designation. This exception is made because S&ID is not responsible for the booster design and expects to test only a limited number of different configurations. Therefore, it did not seem advisable to complicate the Apollo model nomenclature with additional symbols designating various booster components.



## SUMMARY OF COMMAND MODULE VARIABLES

C No.	Nose Cone Semi-angle (deg)	Nose Cone Vertex Radius (in.)	Corner Radius (in.)	Radius of Spherical Blunt End (in.)	Maximum Diameter (in.)	Miscellaneous
1	33	15.4	7.7	184.8	154.0	
2	7.2	9.152	0.0			Spoilers located radially at $\phi = 0, 90, 180$ , and $270^\circ$ deg
3	7.2	9.152	15.4			Spoilers located radially at $\phi = 0, 60, 90, 120, 150, 180, 210, 240, 270$ , and $300^\circ$ deg
4	15.4		23.1	184.8		Portion of midsection is removed
5	15.4		7.7	154.0		Spoilers located radially at $\phi = 0, 90, 180$ , and $270^\circ$ deg
6	15.4		7.7	215.6		Portion of forward section is removed
7	15.4		7.7	184.8		Ring encircling module near maximum diameter
8	30	9.152				Modified apex due to drogue chute motors
9	36	15.4				Addition of ablation material, washers, shear pads, and tension ties
10	40	15.4				Forward section is removed leaving a flat blunt face of 39.68 in. diameter
11	33	15.4				Forward section is removed and replaced with a flat plate
12						Forward section is removed and replaced with a flat plate with a flange
13						Trim flap on upper centerline and at maximum diameter
14						Center of heat shield is 4.35 in. above module centerline
15						Center of heat shield is 2.20 in. above module centerline
16						Heat shield is canted $3.0^\circ$ deg
17						Heat shield is canted $5.0^\circ$ deg
18						Heat shield is canted $10.0^\circ$ deg
19						Heat shield is canted $15.0^\circ$ deg
20						Heat shield is modified above module centerline
21	35	9.152	7.7	184.8	154.0	Square block around forward section
22	33	10.48	8.0	192.0	160.0	Cylinder of 33 deg semiangle and 15.4-in. nose radius replaces forward section
23		none	7.7	184.8	154.0	Same as C34 except semicylinder and located below module centerline
24		none				Forward section is replaced by a cylinder with a flange
25		9.152	7.7			Modified apex for drogue chute motors
26			0.0 to 15.4			Tower leg cavities are left open
27			0.0 to 7.7			Tower leg cavities are left open
28			11.5 to 7.7			Tower leg cavities are left open
29						Square block around forward section
30						Tower leg cavities are left open
31						Tower leg cavities are left open
32						Tower leg cavities are left open
33		9.152	7.7	184.8	154.0	Tower leg cavities are left open, one umbilical fairing, two antenna housings
34		6.983	7.7			Tower leg cavities are left open, one umbilical fairing, two antenna housings
35		15.4				Tower leg cavities are left open, one antenna housing
36		15.4				Tower leg cavities are left open, one antenna housing
37		none				Tower leg cavities are left open, one antenna housing
38		9.152				Tower leg cavities are left open, one antenna housing
39		9.152				Tower leg cavities are left open, one antenna housing
40		none				Tower leg cavities are left open, one antenna housing
41		9.12				Tower leg cavities are left open, one antenna housing
42		9.152				Tower leg cavities are left open, one antenna housing
43		4.4				Tower leg cavities are left open, one antenna housing
44		4.4				Tower leg cavities are left open, one antenna housing
45		4.4				Tower leg cavities are left open, one antenna housing
46		3.3				Tower leg cavities are left open, one antenna housing
47		9.152	7.7	184.8	154.0	Tower leg cavities are left open, one antenna housing
48		9.152	7.7			Tower leg cavities are left open, one antenna housing
49		9.152	7.7			Tower leg cavities are left open, one antenna housing
50		none				Tower leg cavities are closed, one umbilical fairing, two antenna housings, five windows
51		3.3				Apex cover is removed
52						Tower leg cavities are left open; a portion of the forward section is removed
53						A portion of the forward section is removed
54						Apex cover is removed

\* $\theta$  - Looking into the airstream at 0.0 deg angle of attack and measured in a clockwise direction.

\*\* PS-3 and FS-3

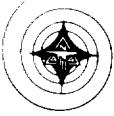


Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C	Command module - max. diameter = 154 in.; radius of spherical blunt end = 184.8 in.; corner radius = 7.7 in.; nose cone semiangle = 33 degrees; nose cone vertex radius = 15.4 in.	M. C. A. G.	FS-1	7121-01051-7, -12, and -13	SAL-1201 SAL-1204	NA 62-82 SID 62-343
		M. C.	FS-1	7121-01053	JPL 21-98 JPL 20-495	SID 62-246 SID 62-423 SID 62-246 SID 62-547
D. H. H. S.	PS-1	7121-01151-2 and -3		JPL 20-493B JPL 21-100	JPL 21-102	SID 62-252 SID 62-486 SID 62-252 SID 62-548
E. F.	H-1	7121-01251-5 and -6			JPL 21-102	SID 62-354 SID 62-628
C. B.	FD-2	7121-01058-6, -7, and -8		LUPWT-349		None SID 62-536
R. U.	FS-1	7121-01051-7, -12, and -13		SAL-1207		None SID 62-1063
C. B.	FD-2	7121-01059		LUPWT-374		None SID 62-1074
R. U.	FS-1	7121-01051-7, -12, and -13			SAL-1208	None SID 62-1056



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C (Cont)		G. D.	FS-1	7121-01051-7, -12, and -13	Ames 396(2 by 2)	None
		R. U.	PS-1	7121-01151-2 and -3	Ames 441(2 by 2)	SID 62-1027 SID 62-252 SID 62-1316
		C. B.	FD-2	7121-01058	LTPPT	None
				7121-01059	233(8 by 8)	SID 62-1065
		C. B.	FD-2	7121-01058 7121-01059	LUPWT- 398	None SID 63-96
		G. D.	FS-1	7121-01051-20 and -21 7121-01253-8 or -11	Ames 577(2 by 2)	Aero 62-194 SID 62-1403
		C. B. C. M.	FD-2	7121-01059	LTPPT	None
		W. B. D. E.	PS-1	7121-01151-2 and -3	AEDC Tunnel C C00	258(8 by 8) SID 63-163 SID 62-1385 SID 63-688
		W. B. D. E.	H-1	7121-01251-5 and -6	AEDC Tunnel C C00	VT-1244- C00
		J. K.	FS-2	7121-01077-3, -4, and -5	Ames 76(11 by 11) 100(9 by 7) 106(8 by 7)	SID 62-100 SID 62-601 SID 62-601 SID 62-778
C <sub>2</sub>	Same as C except nose cone vertex radius = 9.152 in.					



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>2</sub> (Cont)		M. C.	FS-7	7121-01062	JPL 21-98	SID 62-246 SID 62-423
					JPL 20-495	SID 62-246 SID 62-547
P. L.	FS-2	7121-01077-3, -4, and -5		TWT-74	SID 62-353	SID 62-627
D. C.	FS-2	7121-01077-3, -4, and -5		TWT-80	None	SID 62-1212
C. B.	FD-1	7121-01060-2, -3, and -4		JPL 20-516	SID 62-549 SID 62-1358	
R. B. D. H.	PSTL -1	7121-01173		TWT-77	SID 62-745 SID 62-929 SID 62-1151	
C. B.	FD-2	7121-01058-7 7121-01061-5		LUPWT-374	None	SID 62-1074
J. S.	FS-3A	7121-01067		AEDC Tunnel A	SID 62-709	
				304244-300	None	
J. K.	FS-2	7121-01077-3, -4, and -5		Ames 81(11 by 11)	SID 62-100 SID 62-601	



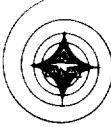
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>2</sub> (Cont)		W. B.	H-2	7121-01254-8	AEDC Tunnel B 304244- 400	SID 62-614 SID 62-993
R. U. P. L.	PS-3			7121-01163-5 and -8	TWT-82	None SID 62-1435
H. S.	PS-4			7121-01159-2 and -3	AEDC Hotshot II 304244- 650	SID 62-538 SID 62-930
M. C.	FS-4			7121-01098	AEDC Hotshot II	SID 62-424 SID 62-977
J. S.	FS-1			7121-01069-2	JPL 21- 127	IOL-Aero SID 62-1256
C. B.	FD-1			7121-01060-2, -3, and -4	JPL 21- 113	SID 62-549 SID 62-1358
W. B.	H-2			7121-01254-8	AEDC Tunnel C 304244- 500	SID 62-614 SID 62-993



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>2</sub> (Cont)		D. C.	FS-2	7121-01077-3, -4, and -5	NAAL- 485	SID 62-738 SID 62-1128
	H. S.	FS-2		7121-01077-3, -4, and -5	TWT-79	None SID 62-1216
	J. S.	PS-3		7121-01163-5 and -8	AEDC Tunnel A 304244- 300	SID 62-752 SID 62-1137
					AEDC Tunnel B 304244- 400	SID 62-752 SID 62-1137
	A. G.	FS-3		7121-01063-1 and -12	AEDC Tunnel A 304244- 300	SID 62-709 SID 62-1057
					AEDC Tunnel B 304244- 400	SID 62-709 SID 62-1057
	A. K.	FS-8		H 18-1103 H 18-1104	CAL 48 in. Shock Tunnel	SID 62-754



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No. Pretest and Data Reports
C <sub>2</sub> (Cont)		E. F.	PSTL -1	7121-011173	Ames 102(14 by 14) SID 63-1480
		R. H. J. K.	FS-2	7121-01077-3, -4, and -5	Ames 112(8 by 7) 108(9 by 7) 85(11 by 11) SID 62-1007 SID 63-145
		R. B. G. H.	PSTL -1	7121-011173	Ames 111(8 by 7) 86(11 by 11) SID 62-799 SID 62-1353-1 and 2 SID 63-1480
		J. W.	FSL-1	LH-100-10 and -11 or -10 and -27	Ames 87(11 by 11) 105(9 by 7) 110(8 by 7) SID 62-805 SID 62-1143
		J. S.	PS-3	7121-011163-5 and -8	AEDC Tunnel C 304244-500 SID 62-752 Tunnel C 304244-500 SID 62-1242
		J. S.	FS-3	7121-01063-1 and -12	AEDC Tunnel C 304244-500 SID 62-709 SID 62-1247



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>2</sub> (Cont)		R. B.	PSTL -1	7121-01173	Ames	SID 62-799 SID 62-809
		B. C.	FSL-1	LH-100-10 and -11 or -27	AEDC 304244-300	106(9 by 7) SID 62-1353-1 and 2 SID 63-1480
		G. D.	FS-1	7121-01053-7 7121-01114-5	JPL 20-536	Aero 62-240 SID 62-1447
		D. C.	FSL-1	7121-01136-10 and -11 or -10 and -27	TWT-84	SID 62-670 SID 63-35
		B. C.	FSL-1	7121-01136-10 and -11 or -10 and -27	NACAL-104	SID 62-669 SID 62-1436
		M. C. E. P.	SD-1	7121-01211	LTDT 48(16 by 16)	SID 62-841 SID 63-33



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>2</sub> (Cont)		W. B. D. E.	HL-1	7121-01254-4 or -8	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688
		C. B.	FD-3	7121-01074 7121-01095	AEDC Tunnel A 304244- 300	SID 62-1299 SID 63-616
		W. B. D. E.	HL-1B	7121-01254-8	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688
		W. B. D. E.	PS-3	7121-01163-5 and -8	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688
		W. B. D. E.	H-2	7121-01254-8	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688
		C. B.	FD-3	7121-01074 7121-01095	AEDC Tunnel C 304244- 500	SID 62-1299 SID 63-616



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
C <sub>2</sub> (Cont)		W. B.	H-7	7121-01159-3 7121-01266-2	AEDC Tunnel F 304244- 700
		R. H.	FS-2 D. C.	7121-01077-3 -4, and -5	Ames 001(11 by 11) 001(9 by 7) 001(8 by 7)
		G. U. W. B.	HL-1 or -8	7121-01254-4	LUPWT- Rey 451
		G. U. W. B.	HL-1B	7121-01254-8	LUPWT- Rey 451
		G. U. W. B.	H-2	7121-01254-8	LUPWT- Rey 451
		E. C.	PS-5	Cornell H18-1108	CAL AA- 1712-Y
		E. C.	H-4	Cornell H18-1106	CAL AA- 1712-Y
		G. U.	HL-1B	7121-01268	AEDC Tunnel C VT-1244- C00
					SID IOL 223-140-63 -023 SID 63-1135



## Apollo Wind Tunnel Model Nomenclature

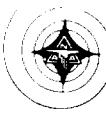
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>2</sub> (Cont)	G. U.	H-2	7121-011268	AEDC Tunnel C	SID IOL 223-140-63 -023	
				VT-1244- C00	SID 63-1135	
J. S.	PS-3	7121-01163-5 and -8	7121-01169-12 thru -15	AEDC Tunnel A	SID IOL 223-140-63 -22	
				VT-1244- A00	SID 63-650	
A. G.	FSJ-1	7121-01103-2		Langley	SID 62-876	
				191(16 by 16)	SID 63-754	
C. B.	FD-5	7121-01122		AEDC Tunnel A	SID 63-316	
				VT-1244- A00	SID 64-1015	
C. B. C. M.	FD-5	7121-01122		Ames	SID 63-472	
				024 (11 by 11)		



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
$C_2$ (Cont)		W. B. D. E.	H-4	Cornell H18-1106	Cornell SID IOL 223-140-63 -045
		D. C. C. M.	FS-2	7121-01077-3, -4, and -5	I09-003 TWT-90 None SID 63-1035
		W. B. D. E.	PS-5	Cornell H18-1108	Cornell SID IOL 223-140- 63-045
		H. T.	FD-8	7121-01129 (Modified)	I09-003 Ames 43(7 by 10) CAL-AA- -1805-Y-1
$C_3$	Same as $C_2$ except corner radius = 0.00 in.	MHC	FS-7	7121-01062	JPL 21- 98 JPL 20- 495 SID 62-246 SID 62-423 SID 62-246 SID 62-547
$C_4$	Same as $C_2$ except corner radius = 15.4 in.	MHC	FS-7	7121-01062	JPL 21- 98 JPL 20- 495 SID 62-246 SID 62-423 SID 62-246 SID 62-547



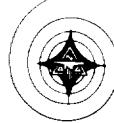
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>5</sub>	Same as C <sub>2</sub> except corner radius = 23.1 in.	MHC	FS-7	7121-01062	JPL 21-98 JPL 20-495	SID 62-246 SID 62-423 SID 62-246 SID 62-547
C <sub>6</sub>	Same as C <sub>2</sub> except radius of spherical blunt end = 154 in.	MHC	FS-7	7121-01062	JPL 21-98 JPL 20-495	SID 62-246 SID 62-423 SID 62-246 SID 62-547
C <sub>7</sub>	Same as C <sub>2</sub> except radius of spherical blunt end = 215.6 in.	MHC	FS-7	7121-01062	JPL 21-98 JPL 20-495	SID 62-246 SID 62-423 SID 62-246 SID 62-547
C <sub>8</sub>	Same as C <sub>2</sub> except nose cone semi-angle = 30 deg.	MHC	FS-7	7121-01062	JPL 21-98 JPL 20-495	SID 62-246 SID 62-423 SID 62-246 SID 62-547
C <sub>9</sub>	Same as C <sub>2</sub> except nose cone semiangle = 36 deg.	MHC	FS-7	7121-01062	JPL 21-98 JPL 20-495	SID 62-246 SID 62-423 SID 62-246 SID 62-547



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>10</sub>	Same as C <sub>2</sub> except nose cone semiangle = 40 deg.	MHC	FS-7	7121-01062	JPL 21-98 JPL 20-495	SID 62-246 SID 62-423 SID 62-246 SID 62-547
C <sub>11</sub>	Same as C except four spoilers located every 90 deg on outside of module. Aft end of spoilers = 27.45 in. forward of heat shield. Length of spoilers No. 1, 3, and 9 = 97.05 in. Length of spoiler No. 6 = 96.50 in. Height of spoilers = 6.15 in. Width of spoilers = 5.0 in.	R. U.	FS-1	7121-01051	SAL-1207	None SID 62-1063
C <sub>12</sub>	Same as C except 10 spoilers located on outside of module. Locations and lengths as follows: No. 1 at 0 deg, 97.05 in.; No. 2 at 60 deg, 89.55 in.; No. 3 at 90 deg, 97.05 in.; No. 4 at 120 deg, 89.45 in.; No. 5 at 150 deg, 89.45 in.; No. 6 at 180 deg, 96.50 in.; No. 7 at 210 deg, 89.50 in.; No. 8 at 240 deg, 89.50 in.; No. 9 at 270 deg, 97.05 in.; No. 10 at 300 deg, 89.33 in. Height of spoilers = 6.15 in. Width of spoilers = 5.0 in. Aft end of spoilers = 27.45 in. forward of heat shield.	R. U.	FS-1	7121-01051	SAL-1207	None SID 62-1063



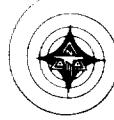
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>13</sub>	Same as C except a portion of the midsection is removed. Location of midsection removed is from 29.25 in. to 70.25 in. aft of apex.	R. U.	FS-1	7121-01051-7 and -13	SAL-1208	None SID 62-1056
C <sub>14</sub>	Same as C except four spoilers located every 90 deg on outside of module. Aft end of spoilers 27.45 in. forward of heat shield. Length of spoilers = 60.0 in. at module-spoiler contact points. Height of spoilers = 6.15 in. Width of spoilers = 5.0 in. Forward end of spoilers sliced to an angle of 36.0 deg to the spoiler center line which = 69.0 deg to the module center line. Cross section of spoiler shows the two corners (not in contact with the module) as having radii = 3.125 in.	R. U.	FS-1	7121-01051	SAL-1207	None SID 62-1063



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>15</sub>	Same as C <sub>2</sub> except four rails located every 90 deg on outside of module. Forward end of rails = 93.52 in. forward of heat shield. Length of rails = 81.90 in. Height of rails = 6.16 in. Width of rails = 2.86 in.	J. K.	FS-2	7121-01077-3, -4, -5, and -18	Ames 106(8 by 7)	None SID 62-601 SID 62-778
C <sub>16</sub>	Same as C except a portion of the forward section is removed. Location of forward section removed is from apex to 70.25 in. aft of apex.	R. U.	FS-1	7121-01051-7	SAL-1208	None SID 62-1056
C <sub>17</sub>	Same as C except there is a ring around the module. Location of ring = 111.40 in. aft of the apex. Thickness of ring = 7.75 in. Diameter of ring = 166.00 in.	R. U.	FS-1	7121-01051-7, -12, -13, and ring	SAL-1208	None SID 62-1056
C <sub>18</sub>	Same as C <sub>2</sub> except modified apex consisting of two drogue chute mortars and one pitch control aperture. Nose cone vertex radius = 12.95 in.	D. C.	FS-9	C. O. 7121-126 487	NAAL- SID 62-738 SID 62-1129	



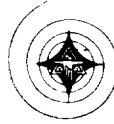
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>19</sub>	Same as C <sub>2</sub> except forward section is removed and a balance adapter substituted.	C. B.	FD-2	7121-01072-3, -5, and -7	LUPWT-398	None SID 63-96
		C. B. C. M.	FD-2	7121-01072-3, -5, and -7	LTPPT 258(8 by 8)	None SID 63-163
		C. M.	FD-2	7121-01072-3, -5, and -7	LUPWT-411	None SID 63-197
C <sub>20</sub>	Same as C <sub>2</sub> except additional ablation material in umbilical area. Three washers on blunt face at $\phi$ = 12.75, 132.75 and 242.75 deg, respectively; six tension ties on blunt face at $\phi$ = 12.75, 47.25, 132.75, 192.75, 242.75 and 312.75 deg respectively.	H. S. D. C.	FS-2	7121-01077-3, -4, and -5 C. O. 7121-154	TWT-80	None SID 62-1212
C <sub>21</sub>	Maximum diameter = 160.00 in.; radius of spherical blunt end = 192.00 in.; corner radius = 8.0 in.; nose cone semiangle = 35.0 deg.; nose cone vertex radius = 10.48 in.	H. G.	H-6	Q61-21-3	Shock Tunnel	NA 62-459
		PS-6		Q61-21-5	4	SID 62-1072



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>22</sub>	Same as C except a portion of the forward section is removed. Forward section removed is from apex to 30.55 in. aft of apex. Diameter of forward end = 39.68 in.	G. D.	FS-1	7121-01112-8	Ames 577(2 by 2)	Aero 62-194 SID 62-1403
C <sub>23</sub>	Same as C except a portion of the forward section is removed and a solid cylinder added. Section removed is from apex to 25.55 in. aft of apex. Diameter of forward end before addition of cylinder = 33.18 in. Diameter of cylinder = 33.18 in.; length = 5.0 in.	G. D.	FS-1	7121-01112-9	Ames 577(2 by 2)	Aero 62-194 SID 62-1403
C <sub>24</sub>	Same as C except a portion of the forward section is removed and a solid cylinder and disc are added. Section removed is from apex to 25.55 in. aft of apex. Diameter of forward end before addition of cylinder = 33.18 in. Diameter of cylinder = 33.18 in.; length = 5.0 in. Disc is located 5.0 in. forward of aft end of cylinder; thickness = 1.66 in.; diameter = 39.82 in.	G. D.	FS-1	7121-01112-10	Ames 577(2 by 2)	Aero 62-194 Not Tested



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>25</sub>	Same as C <sub>2</sub> except there is a trim flap 14.0 in. wide encircling the upper half of the module. The outward most tip (radial location $\phi = 0$ deg) is located 120.85 in. aft of the module apex. The forward end of the flap is 116.85 in. aft of module apex. The aft end follows the curvature of the heat shield (184.8 in. radius). At maximum diameter this flap has a 77.0 in. radius whose center is 9.10 in. above module centerline. Maximum major axis = 163.10 in. and maximum minor axis = 154.0 in.	J. S.	FS-1	7121-01069-2 and -6	JPL 21- 127	None SID 62-1256
C <sub>26</sub>	Same as C <sub>2</sub> except center of heat shield is 4.35 in. above module centerline and corner radius has a uniform transition from 0.0 in. at upper centerline to 15.4 in. at lower centerline.	J. S.	FS-1	7121-01069-7	JPL 21- 127	None SID 62-1256

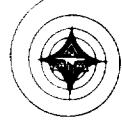


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>27</sub>	Same as C <sub>2</sub> except center of heat shield is 2.2. in. above module centerline, corner radius has a uniform transition from 0.0 in. at upper centerline to 7.7 in. at lower centerline, and maximum diameter = 158.3 in.	J.S.	FS-1	7121-01069-12	JPL 21-127	None SID 62-1256
C <sub>28</sub>	Same as C <sub>2</sub> except heat shield is canted 3 deg about the center of the upper corner diameter of command module C <sub>2</sub> . Center is located 120.85 in. from module apex and 69.3 in. above module centerline. The lower end of the heat shield is 80.60 in. below module centerline. Corner radius has a uniform transition from 7.7 in. at lower centerline to 11.50 in. at upper centerline.  *FS-1: Model was measured.	J.S.	*FS-1	7121-01069-13	JPL 21-127	None SID 62-1256
C <sub>29</sub>	Same as C <sub>2</sub> except heat shield is canted 5 deg about the center of the upper corner diameter.	J.S.	FS-1	7121-01069	JPL 21-127	None SID 62-1256
C <sub>30</sub>	Same as C <sub>2</sub> except heat shield is canted 10 deg about the center of the upper corner diameter.	J.S.	FS-1	7121-01069	JPL 21-127	None SID 62-1256



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>31</sub>	Same as C <sub>2</sub> except heat shield is canted 15 deg about the center of the upper corner diameter.	J. S.	FS-1	7121-01069	JPL 21-127	None SID 62-1256
C <sub>32</sub>	Same as C <sub>2</sub> except the upper half does not have a 184.8 in. spherical radius for the heat shield. All points measured along the centerline of the upper heat shield are at a constant distance of 142.55 in. aft of the module apex.	J. S.	FS-1	7121-01069-14	JPL 21-127	None SID 62-1256
C <sub>33</sub>	Same as C <sub>2</sub> except nose cone vertex radius = 6.98 in. and a block 40.68 in. square is around the forward portion of the module. Block is located 17.27 in. aft of the module apex.	C. B.	FD-3	7121-01075-2, -3, -4, and -6 or 7121-01075 -2, -3, -5, and -7	AEDC Tunnel A 304244- 300	SID 62-1299 SID 63-616
C <sub>34</sub>	Same as C except section from apex to 29.37 in. aft of apex is removed and replaced by a cylinder and nose cone. Total length of cylinder and nose cone = 55.0 in. Diameter of cylinder = 38.15 in. Nose cone semiangle = 33 deg. Nose cone vertex radius = 15.4 in.	G. D.	FS-1	None	Aero 62-194 577(2 by 2) SID 62-1403	Ames SID 62-1403



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>35</sub>	Same as C except section from apex to 29.37 in. aft of apex is removed and replaced by a semicylinder and semicone each of which has been separated at the centerline. Total length of cylinder and nose cone = 55.0 in. Diameter of cylinder = 38.15 in. Nose cone semi-angle = 33 deg. Nose cone vertex radius = 15.4 in.	G. D.	FSC-1	None	Ames 577(2 by 2)	Aero 62-194 SID 62-1403
C <sub>36</sub>	Same as C <sub>2</sub> except forward section (up to 59.75 in. aft of module apex) is removed and a cylinder with a flange on forward end added. Length of cylinder and flange = 32.10 in. Diameter of cylinder = 30.0 in. Diameter of flange = 32.00 in.; thickness = 0.97 in.	W. L.	FSC-1	7121-01119-2, -3, -7, -8, and -9	NAAI-L- 489	None SID 63-274
C <sub>37</sub>	Same as C <sub>2</sub> except forward portion (from apex to 59.75 in. aft of apex) is modified to accommodate two drogue chute mortars.	W. L.	FDC-1	7121-01127-2 -1 J. K. FDC-1 W. L. FDC-1	NAAI-L- 490 through -7, -9, -10, -12, and -16 49(16 by 16) 7121-01128-3, -7, and -8	None SID 63-279 SID 62-1346 SID 63-319 None SID 63-279



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C38	Same as C2 except the tower leg cavities are left open.  (See sketch for dimensions.)	D. C. R. H.	*FS-2	S&ID Letter Aero 62-274	TWT-85	None SID 63-84
		J. S.	*PS-3	7121-01169-3 thru -6	AEDC Tunnel A -22	S&ID IOL 223-140-63
					VT-1244-A00	VT-1244- A00
					AEDC Tunnel C -22	S&ID IOL 223-140-63
					VT-1244-C00	VT-1244- C00
					AEDC Tunnel A	SID 63-709
					VT-1244-A00	VT-1244- A00
					AEDC Tunnel C	SID 62-709
					VT-1244-C00	VT-1244- C00
					LTPPT	SID 63-457
					275 (8 by 8)	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>38</sub> (Cont)	J. D. *FS-3	J. D.	*FS-3	7121-01093	AEDC Tunnel A VT-1244 -A00	SID 62-709
					AEDC Tunnel C VT-1244 -C00	SID 62-709
	J. D. *FS-3A	J. D.	*FS-3A		AEDC Tunnel A VT-1244- A00	
C <sub>39</sub>	Same as C <sub>2</sub> except the tower leg cavities are left open. The centers of the cavities are located 53.15 in. aft of the module apex and radially at $\phi = 45, 135, 225,$ and $315$ deg; they also form a square shaped pattern of 46.75 in. by 46.75 in. Total depth $\approx 12.43$ in.; diameter = 7.15 in.	R. H. D. C.	FS-2	7121-01077-3, -4, and -5	Ames 001(11 by 11) 001(9 by 7) 001(8 by 7)	SID 63-28 SID 63-448 SID 63-448
C <sub>40</sub>	Same as C <sub>2</sub> except section from apex to 20.31 in. aft of apex is removed and tower leg cavities are left open. (See sketch for dimensions.)	J. M. J. D.	FSJ-3	7121-01144-3 or -5 and part of -9	AEDC Tunnel A VT-1244- A00	SID 63-352 SID 64-1015



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>41</sub>	Same as C <sub>2</sub> except nose cone vertex radius = 9.12 in. and a block 40.68 in. square is around the forward section of the module. The block is located 17.27 in. aft of the module apex.	C. M.	FD-5	7121-01121-10	AEDC Tunnel A VT-1244-A00	SID 63-316 SID 64-1015
C <sub>42</sub>	Same as C <sub>2</sub> except the tower leg cavities are left open. (See sketch for dimensions.)	J. S. P. B.	PSTL-2	7121-011191-6 and part of -4	Ames 37(9 by 7) 37(11 by 11)	SID 63-1027
C <sub>43</sub>	Same as C <sub>39</sub> except there is one umbilical fairing located 98.09 in. aft of module apex and radially at $\phi = 16$ deg. There are also two antenna housings on the surface of the command module. One is located radially at $\phi = 177$ deg and 98.41 in. aft of module apex; the other is located radially at $\phi = 343$ deg and 101.42 in. aft of module apex. (See sketch for dimensions.)	B. C.	FS-2	7121-01077-3, -4, and -5 7121-01048-9a, -9b, and -10	Ames 066(8 by 7) 066(9 by 7) 066(11 by 11)	None



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>44</sub>	Same as C <sub>39</sub> except there is one umbilical fairing located 98.09 in. aft of module apex and radially at $\phi = 16$ deg. There is one antenna housing on the surface of the command module located radially at $\phi = 343$ deg and 101.42 in. aft of module apex. (See sketch for dimensions)	B. C.	FS-2	7121-01077-3, -4, and -5 7121-01048-9a and -10	Ames 066(8 by 7) 066(9 by 7) 066(11 by 11)	
C <sub>45</sub>	Same as C <sub>38</sub> except there is one umbilical fairing located 98.15 in. aft of module apex and radially at $\phi = 16$ deg. There are two antenna housings on the surface of the command module. One is located radially at $\phi = 177$ deg and 98.51 in. aft of module apex; the other is located radially at $\phi = 343$ deg and 100.44 in. aft of module apex. (See sketch for dimensions)	J. D.	FS-3		AEDC Tunnel A VT-1244- A00	
C <sub>46</sub>	Same as C <sub>38</sub> except there is one antenna housing on the surface of the command module located 100.4 in. aft of module apex and radially at $\phi = 343$ deg. (See sketch for dimensions)	J. D.	FS-3		AEDC Tunnel A VT-1244- A00	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C47	Same as C38 except there is one umbilical fairing located 98.15 in. aft of the module apex and radially at $\theta = 16$ deg. There are also two antenna housings on the module surface. One is located 98.51 in. aft of the module apex and radially at $\theta = 177$ deg; the other is located 100.44 in. aft of the module apex and radially at $\theta = 343$ deg.  (See sketch for dimensions)	G. U. H. T.	FD-6	7121-01316 7121-01317	Ames 43 (12 by 12)	SID 63-1366
C48	Same as C38 except there is one antenna housing on the module surface located 68.92 in. aft of module apex and radially at $\theta = 343$ deg.  (See sketch for dimensions)	J. D. FS-3		7121-01043	AEDC Tunnel A VT-1244-A A00	
C49	Same as C38 except windows, antenna housings, and umbilical fairings have been added to the module surface.  (See sketch for dimensions and locations)	J. S. P. B.	PSTL-2		Ames 37 (9 by 7) 37 (11 by 11)	SID 63-1027

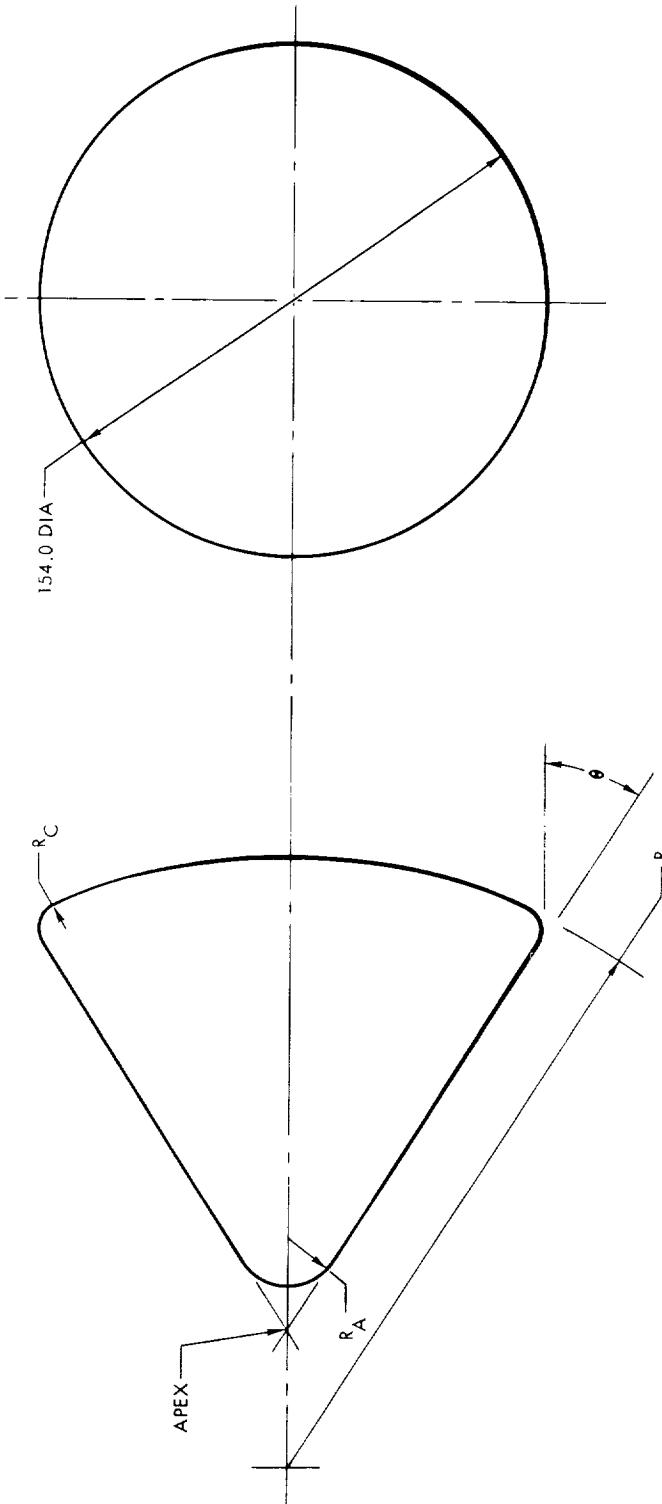
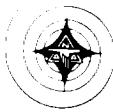


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
C <sub>50</sub>	Same as C <sub>38</sub> except one umbilical fairing and two antenna housings have been added to the module surface. The umbilical fairing is located 67.67 in. aft of the module apex and radially at $\phi = 16$ deg. The antenna housings are located 98.45 in. aft of module apex, $\phi = 177$ deg; and 100.33 in. aft of module apex, $\phi = 343$ deg.	D. E.	HL-1C	7121-01264-7, -8, and -10		
C <sub>51</sub>	Maximum diameter = 154.0 in. Radius of spherical blunt end = 184.4 in. Corner radius = 7.7 in. A section of the command module (from apex to 60.25 in. aft of apex) has been removed. Module vertex semiangle = 33 deg.	B. C.	FS-10A	7121-01030 7121-01077-3	TWT-101	None 696-710-140-64-012
C <sub>52</sub>	Maximum diameter = 154.0 in. Radius of spherical blunt end = 184.8 in. Corner radius = 7.7 in. A section of the command module (from apex to 40.25 in. aft of apex) has been removed. Module vertex semiangle = 33 deg.	J. D.	FS-3		AEDC Tunnel C VT-1244-C00	



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
					Pretest and Data Reports
C <sub>53</sub>	Maximum diameter = 154.0 in. Radius of spherical blunt end = 184.8 in. Corner radius 7.7 in. Module vertex semiangle = 33 deg. A portion of the forward section has been removed.  (Refer to sketch)	J. S. P. B.	FS-10 and -5	7121-01276-3	TWT-103
C <sub>54</sub>	Maximum diameter = 154.0 in. Radius of spherical blunt end = 184.8 in., corner radius = 7.7 in., and module vertex semiangle = 33 deg. The apex cover has been removed. There is a parachute deck located 59.25 in. aft of module apex; diameter = 76.32 in.; thickness = 1.0 in. There are four bulkheads attached to the parachute deck and are located 42 deg 45 min above and below the command module centerline. There are two drogue motars (radial locations, $\theta = 25$ and 335 deg), a single reaction control system engine (radial location, $\phi = 0$ deg), three pilot chute motars, and three main parachute packs located on the parachute deck.	B. C.	FS-10 -7, -8, -9, -10, -11, and -12	7121-01295-6, 7121-01276-5	

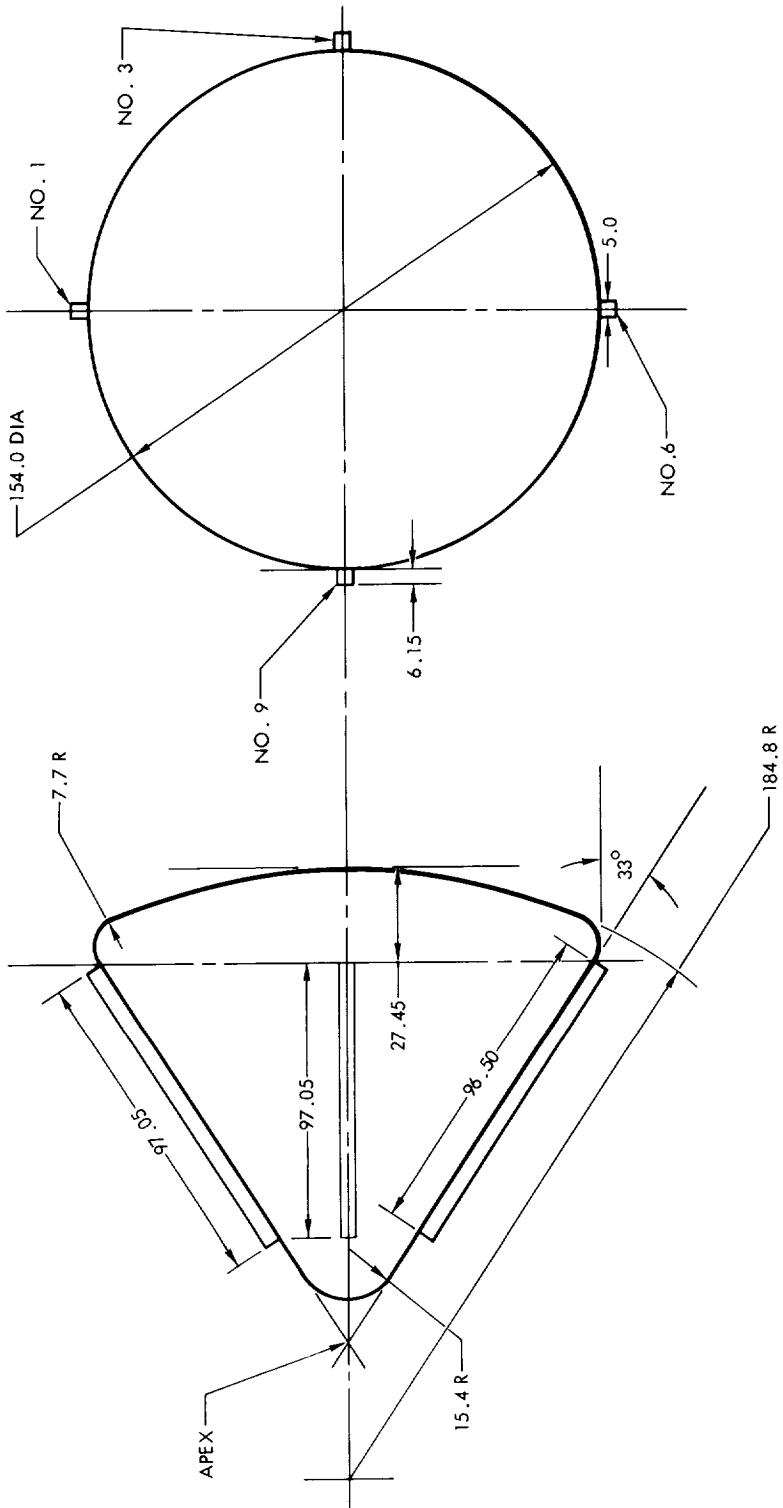


COMMAND MODULE	$\theta$ (DEG)	$R_A$ (IN.)	$R_C$ (IN.)	$R_O$ (IN.)
C	33	15.4	7.7	184.8
$C_2$		9.152	7.7	
$C_3$			0.0	
$C_4$			15.4	
$C_5$			23.1	184.8
$C_6$			7.7	154.0
$C_7$	33			215.6
$C_8$	30			184.8
$C_9$	36			184.8
$C_{10}$	40	9.152	7.7	84.8

COMMAND MODULE

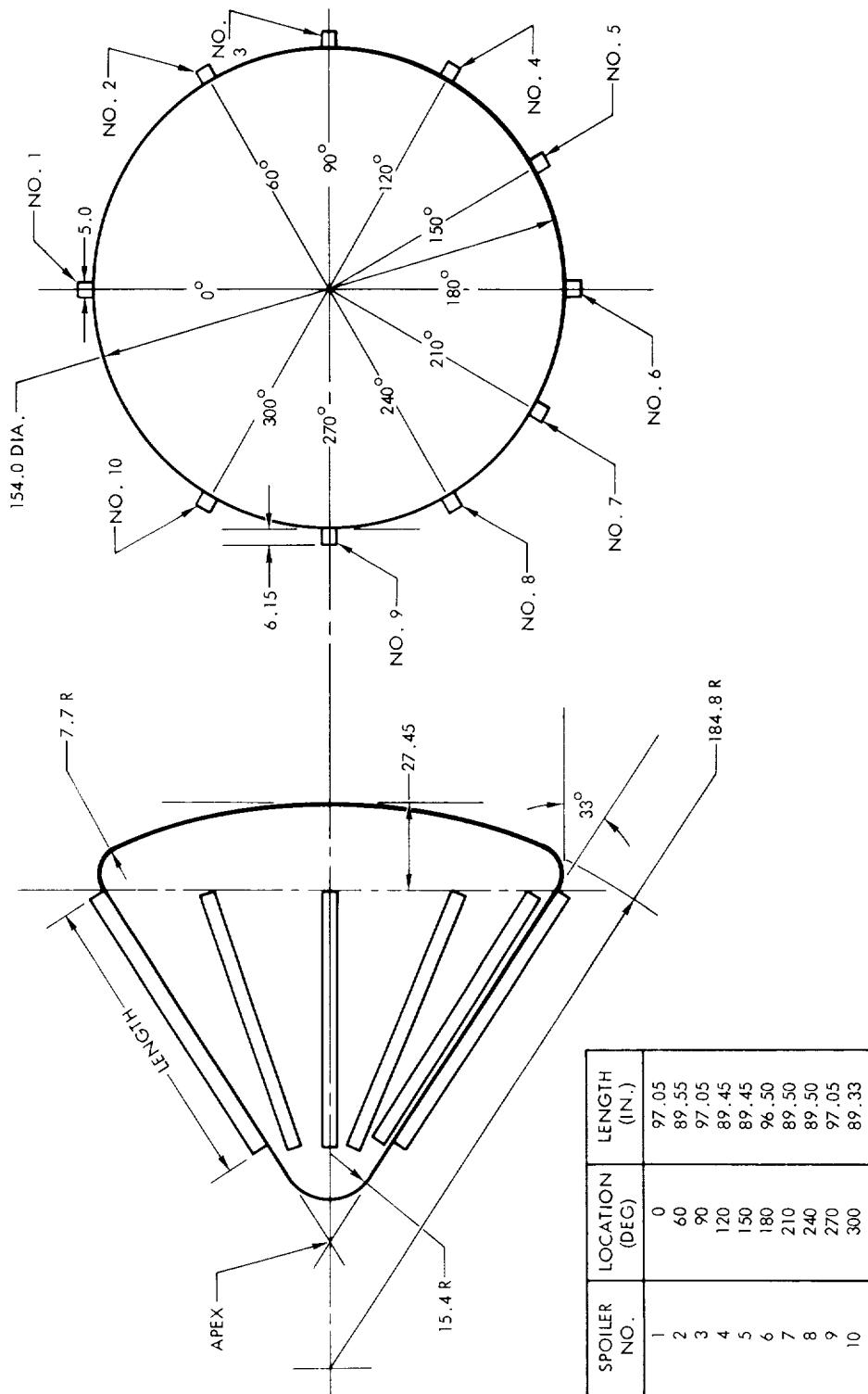
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

COMMAND MODULE C<sub>11</sub>

FULL-SCALE DIMENSIONS IN INCHES

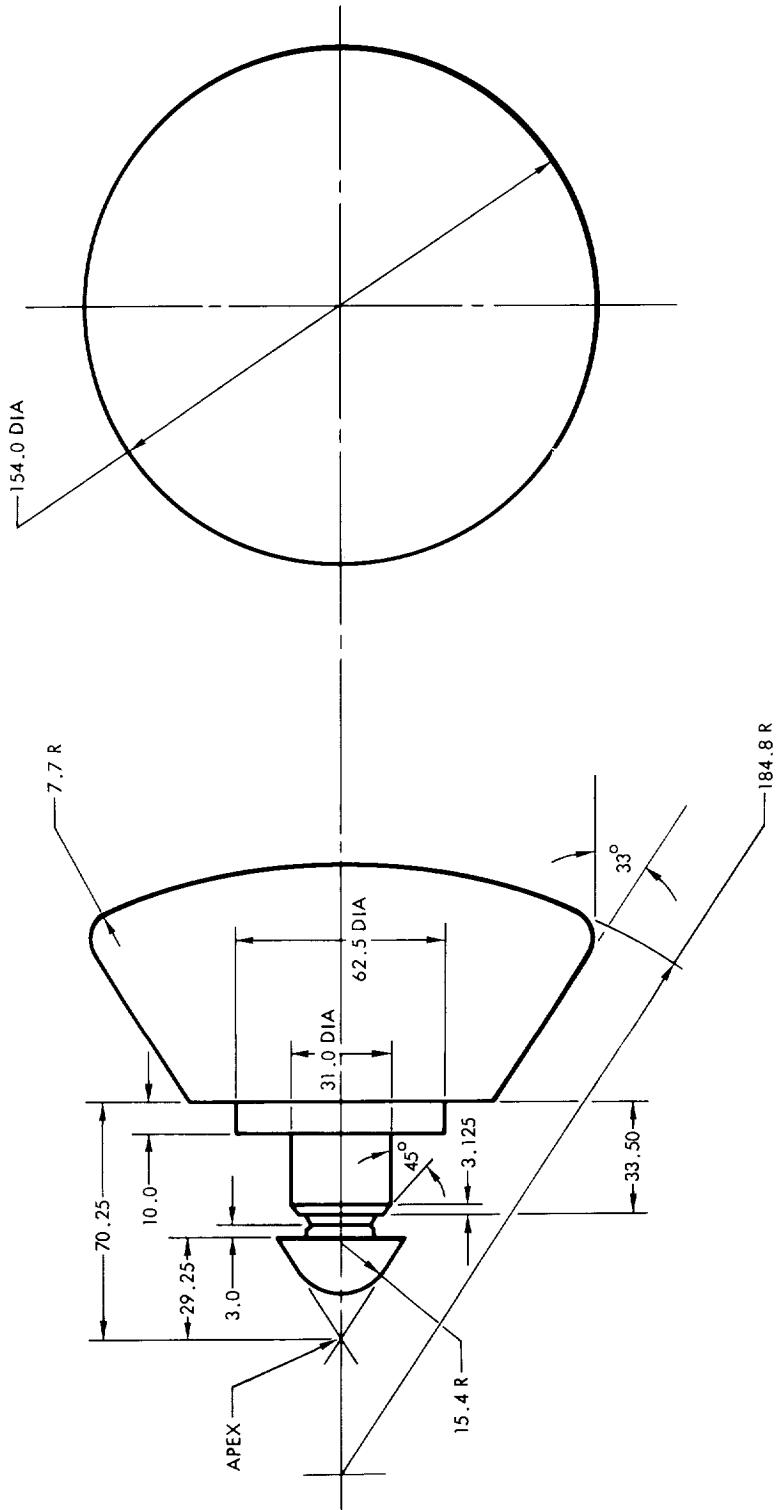
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DRAWING NOT TO SCALE

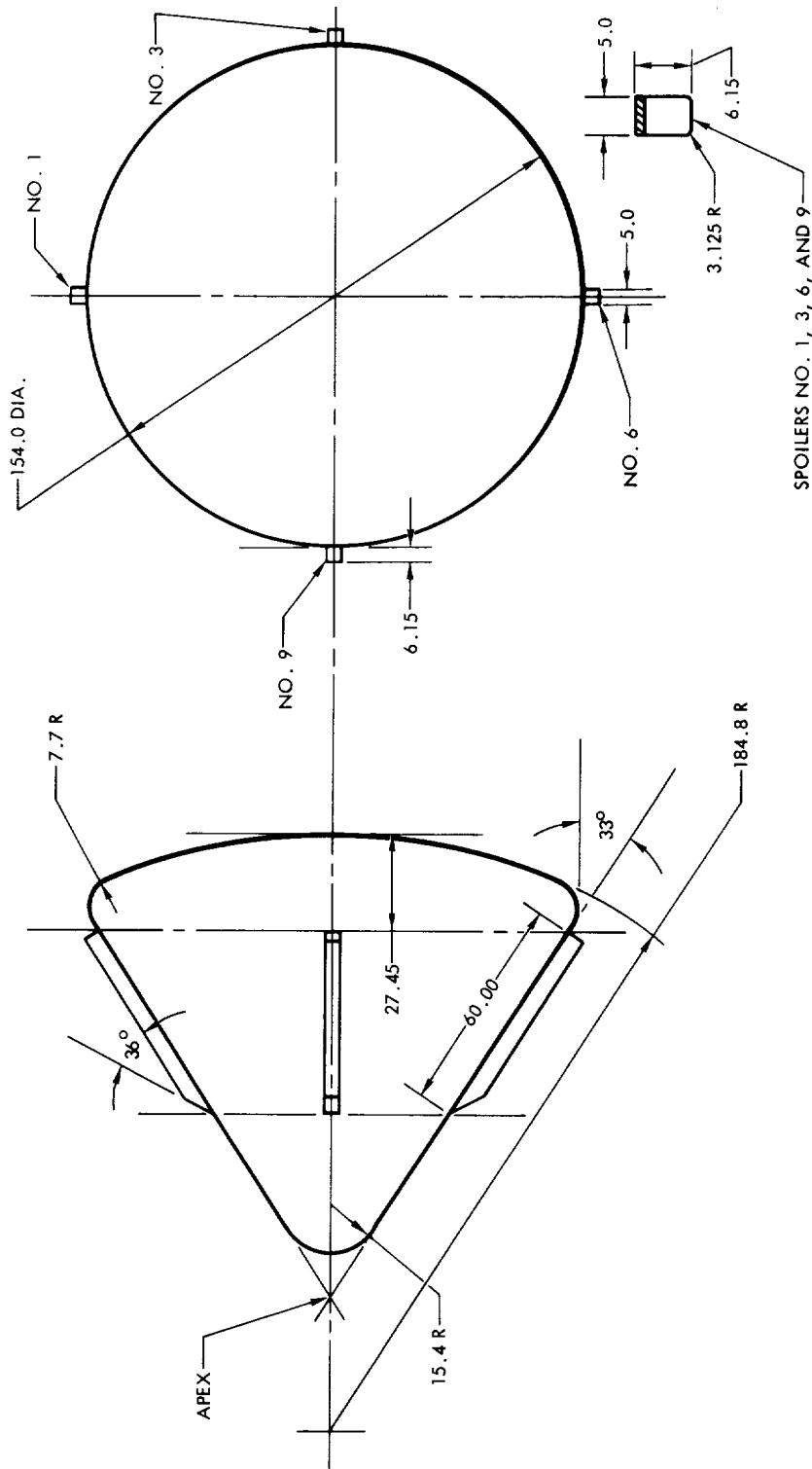
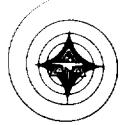
COMMAND MODULE C<sub>12</sub>

FULL-SCALE DIMENSIONS IN INCHES

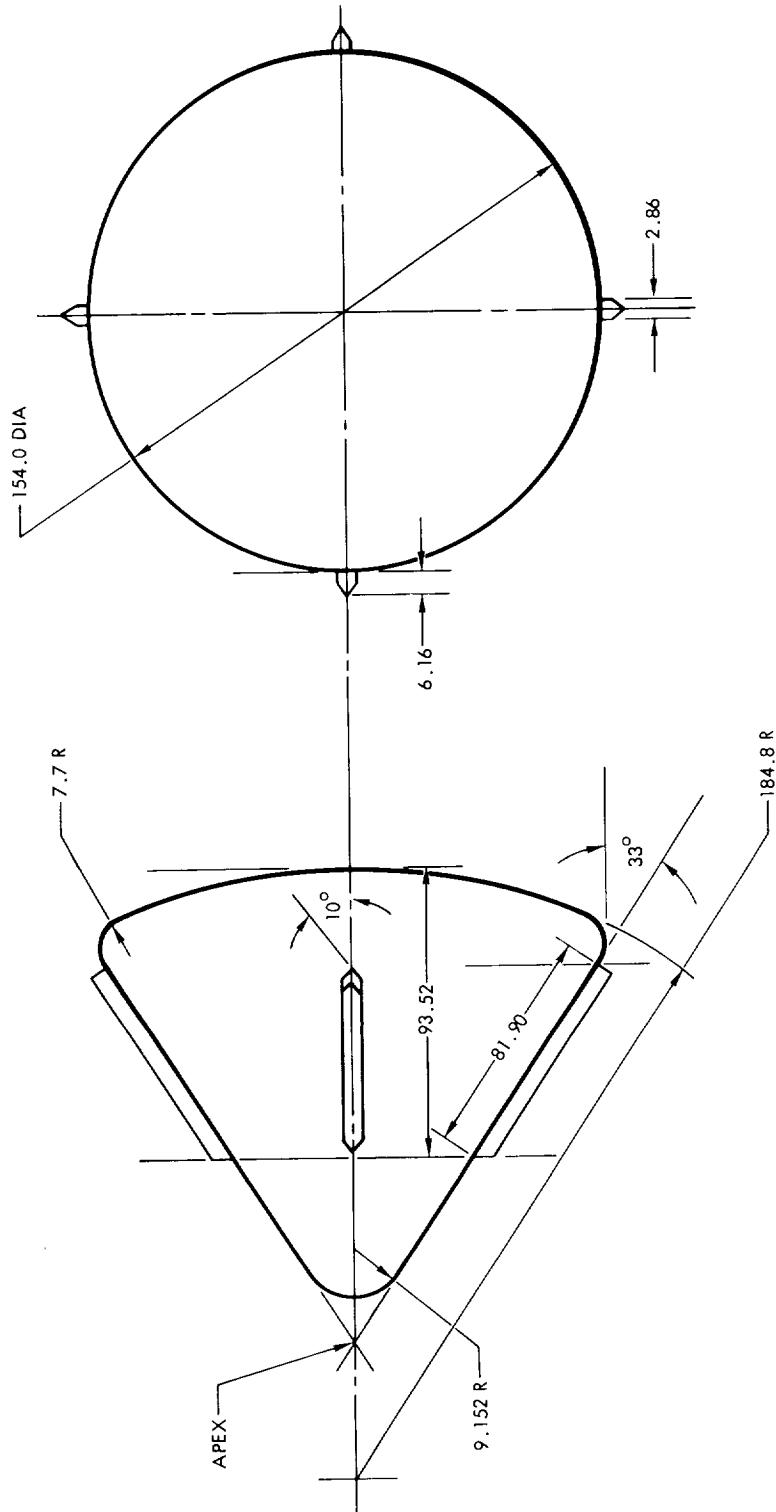
COMMAND MODULE C<sub>13</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

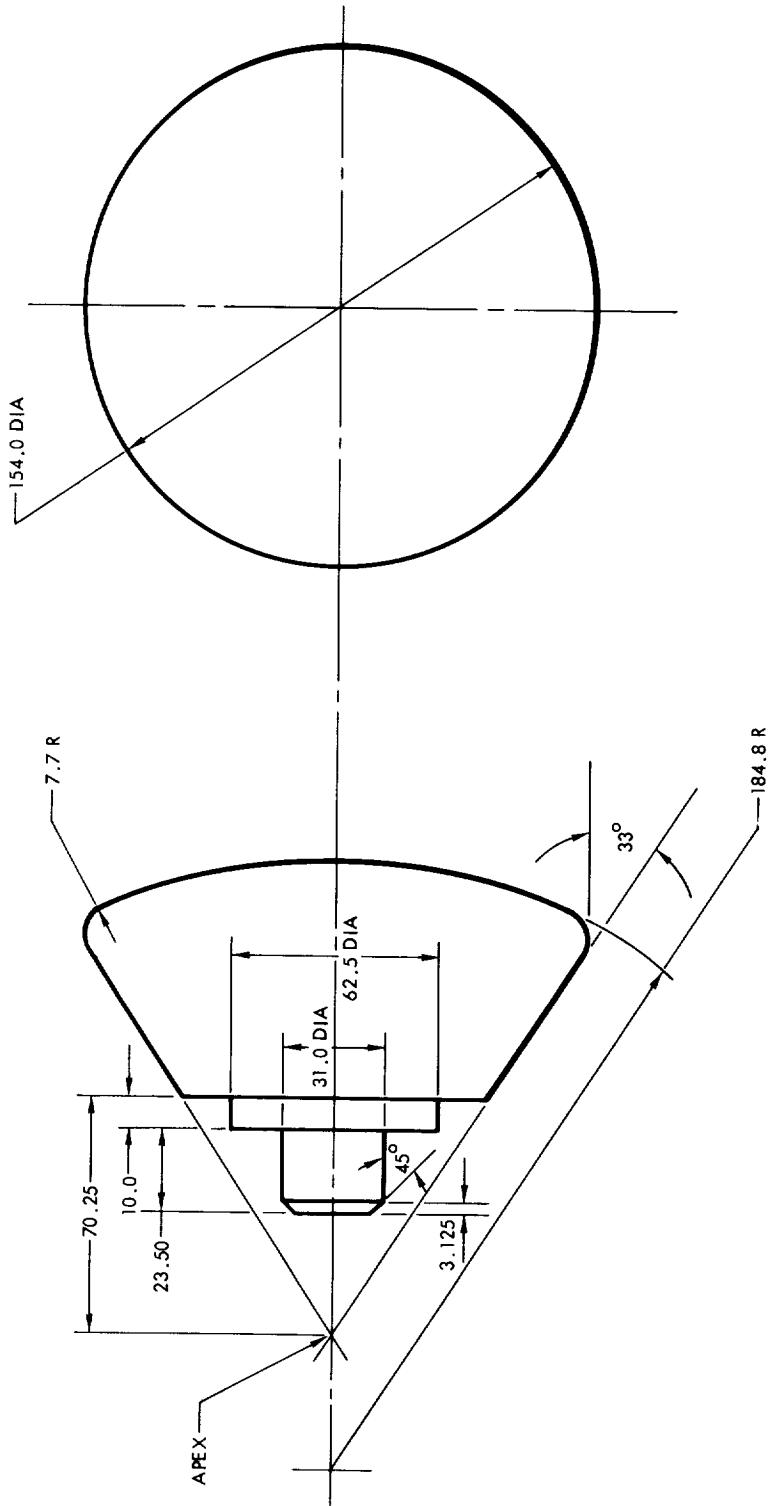
COMMAND MODULE C<sub>14</sub>

FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C<sub>15</sub>

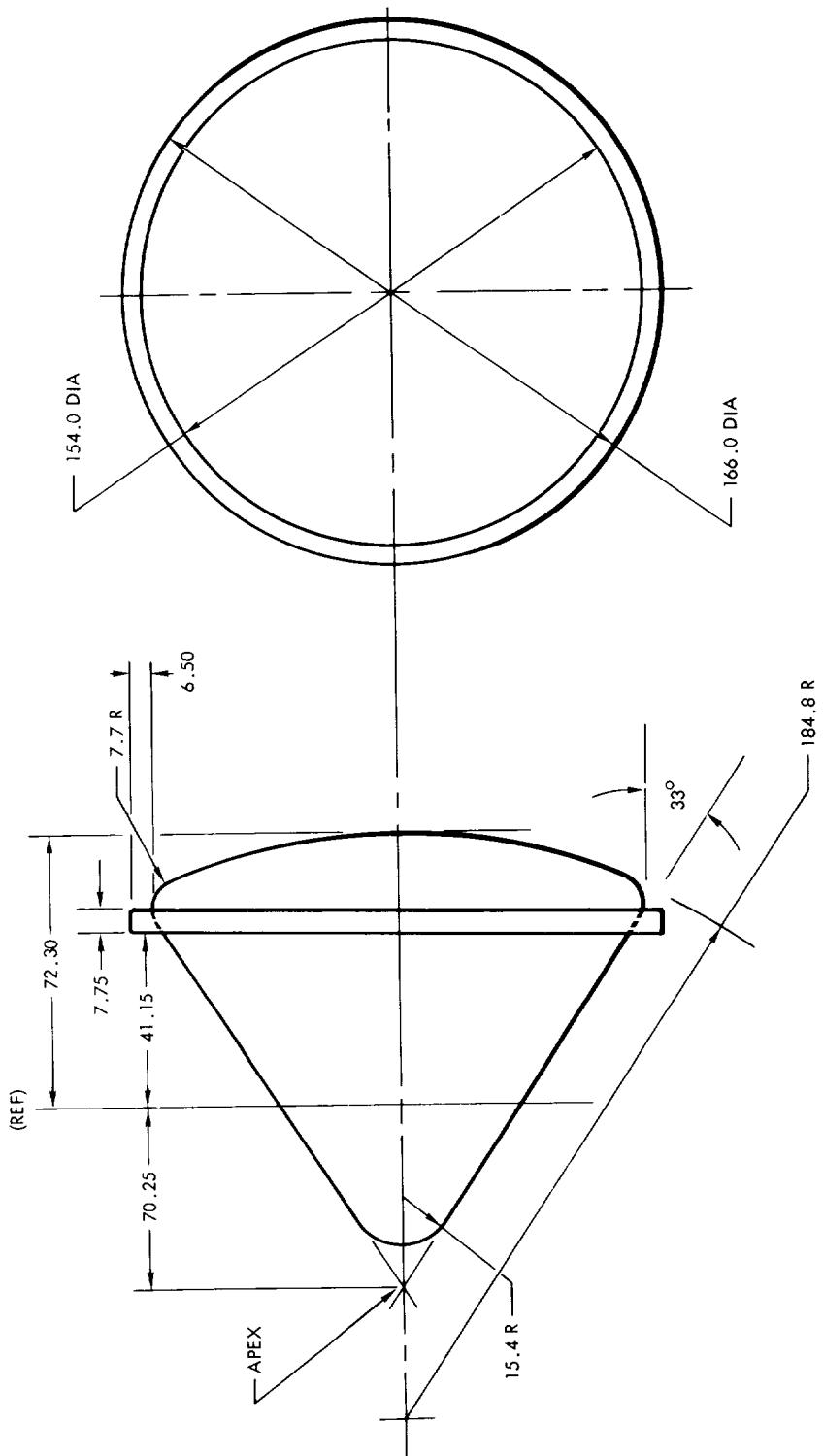
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

COMMAND MODULE C<sub>16</sub>

FULL-SCALE DIMENSIONS IN INCHES

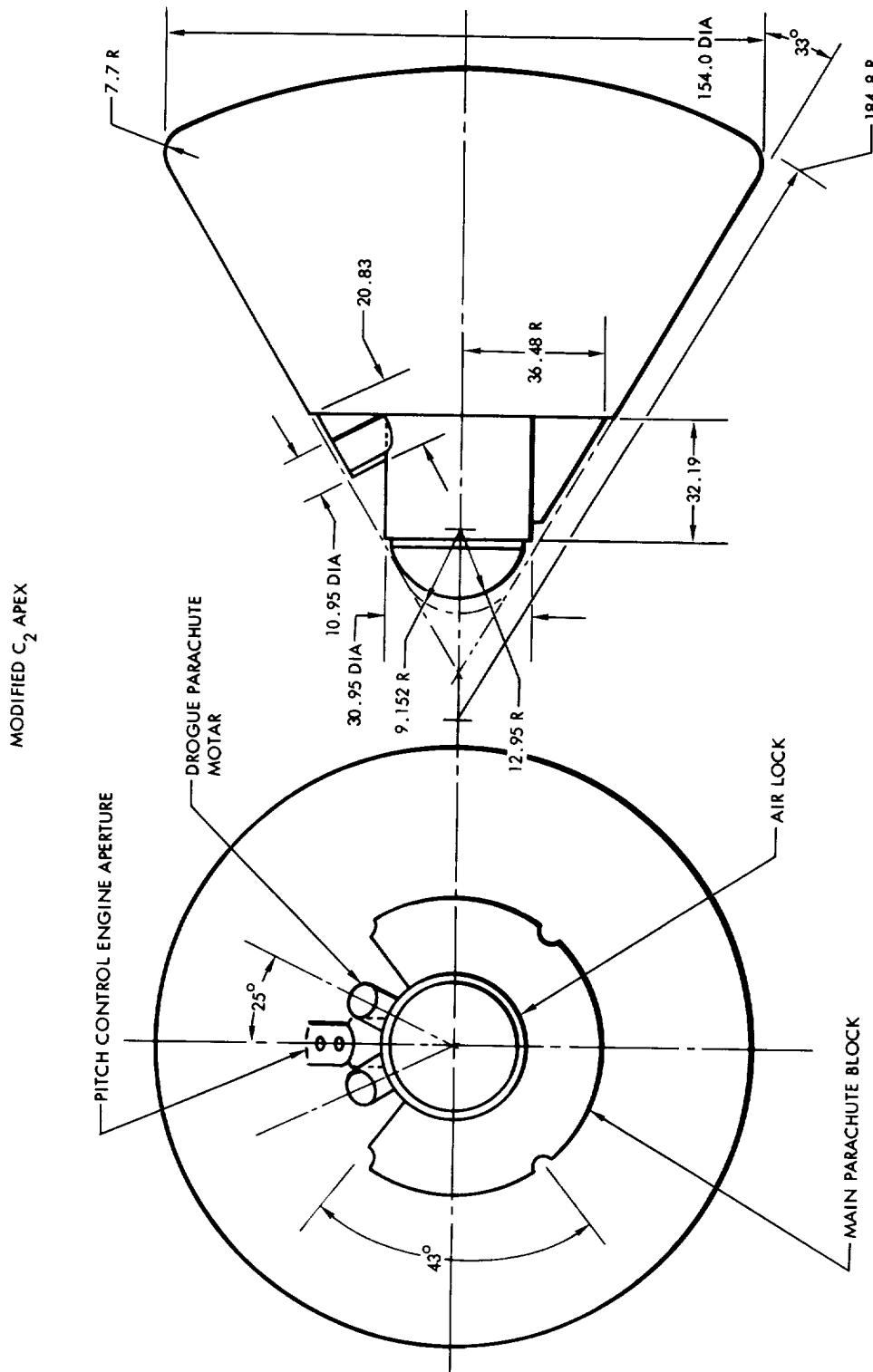
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

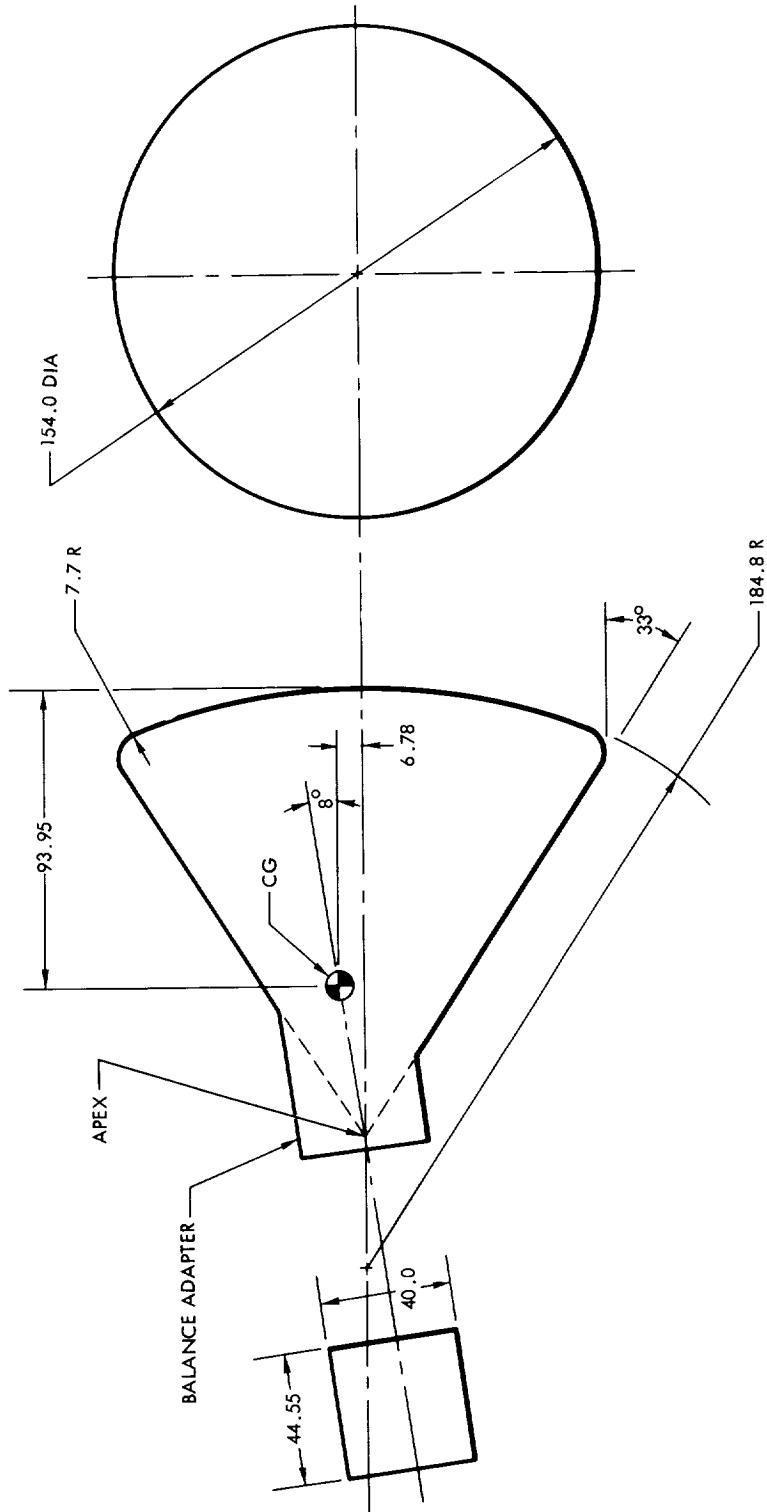
COMMAND MODULE C<sub>17</sub>

FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C<sub>18</sub>

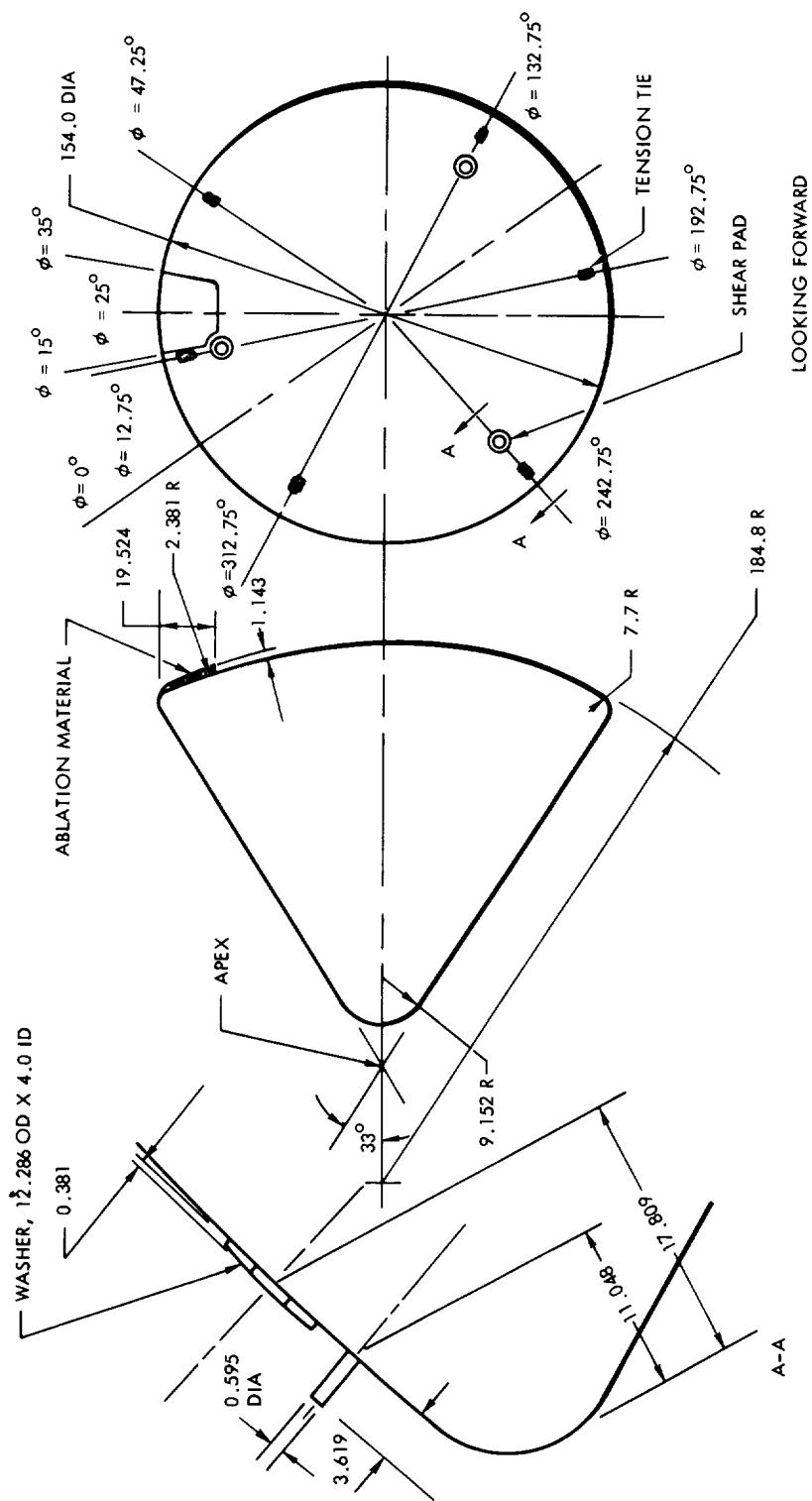
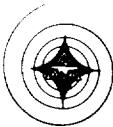
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

COMMAND MODULE C<sub>19</sub>

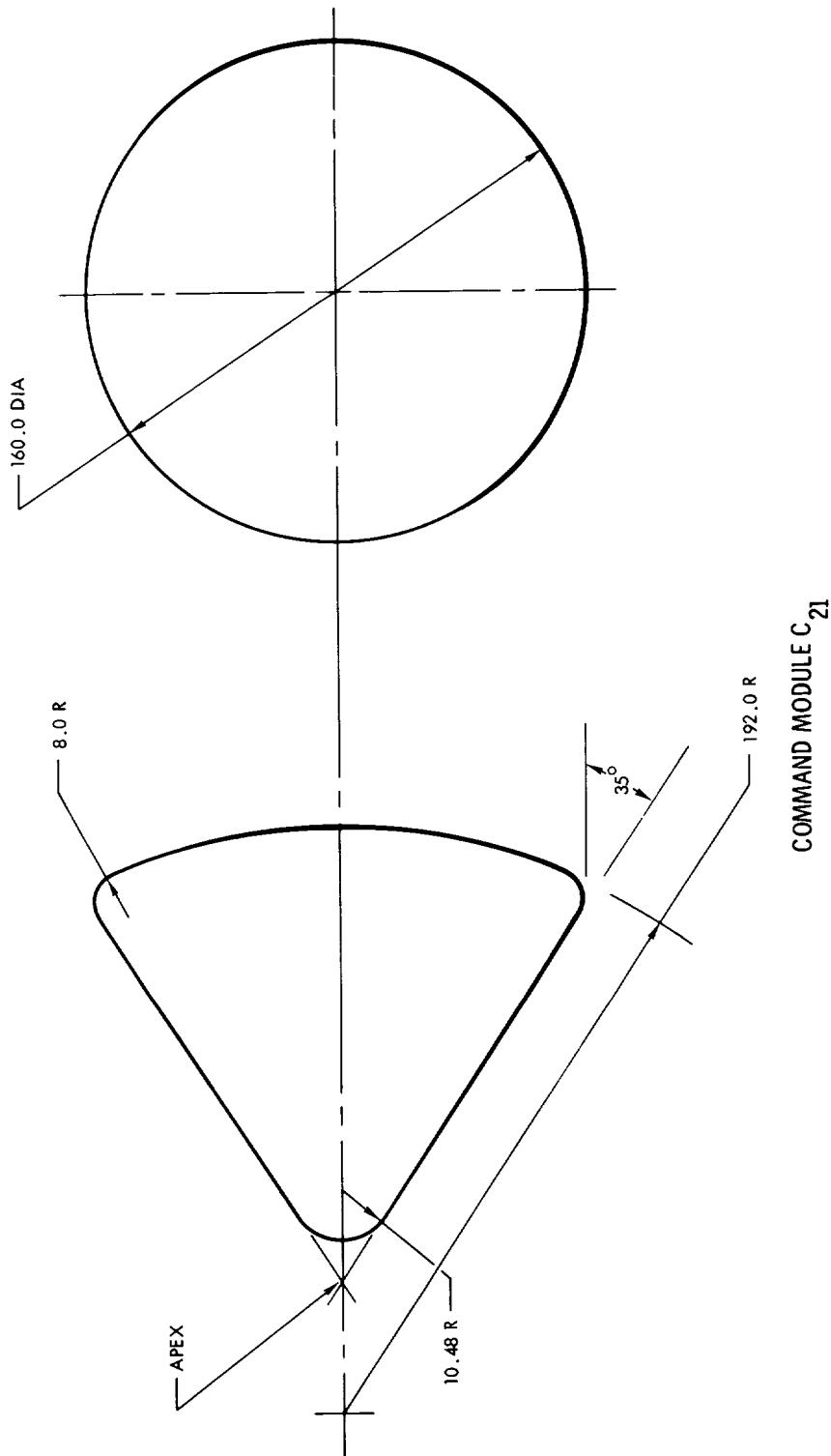
FULL-SCALE DIMENSIONS IN INCHES

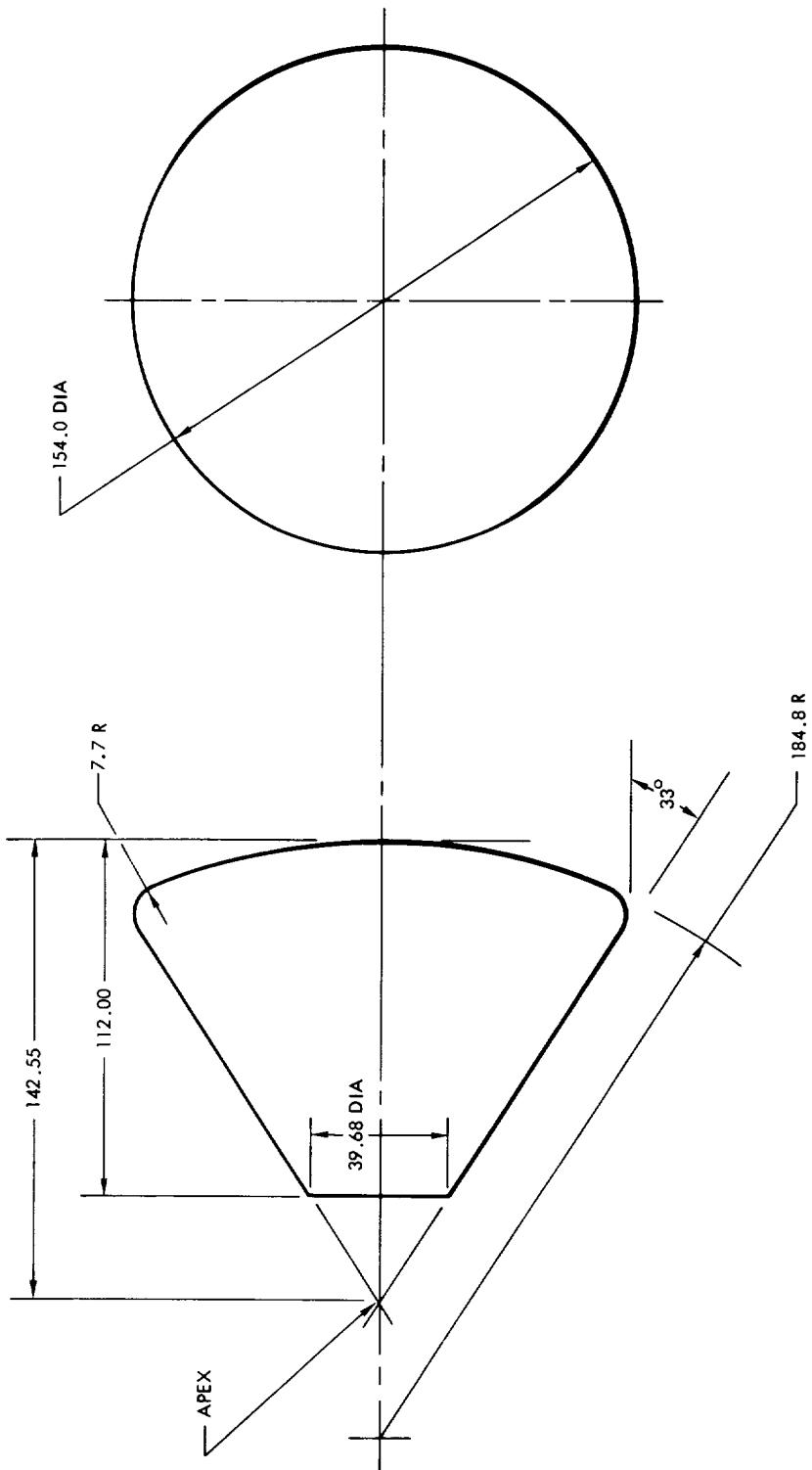
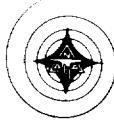
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

COMMAND MODULE C 20

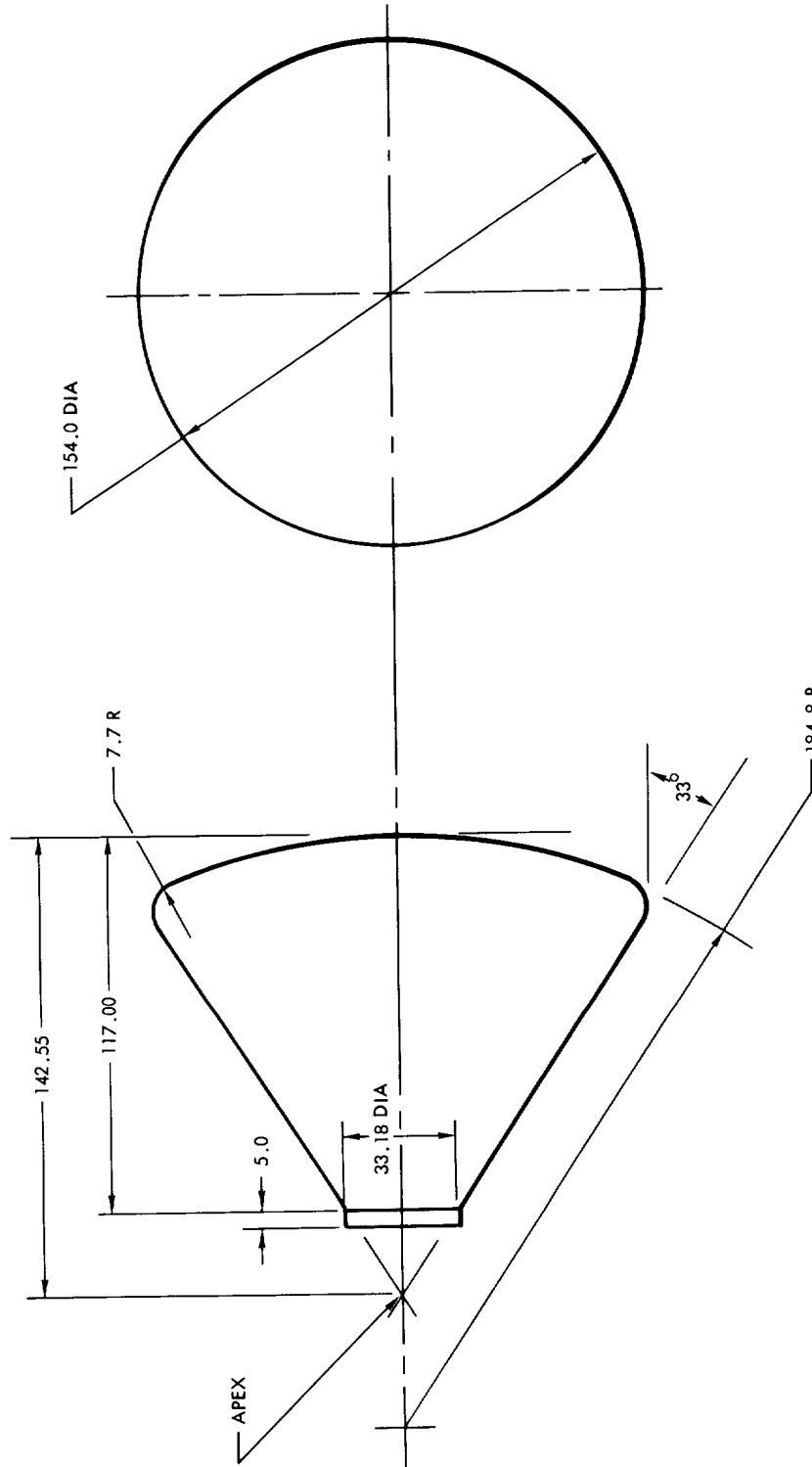




FULL-SCALE DIMENSIONS IN INCHES

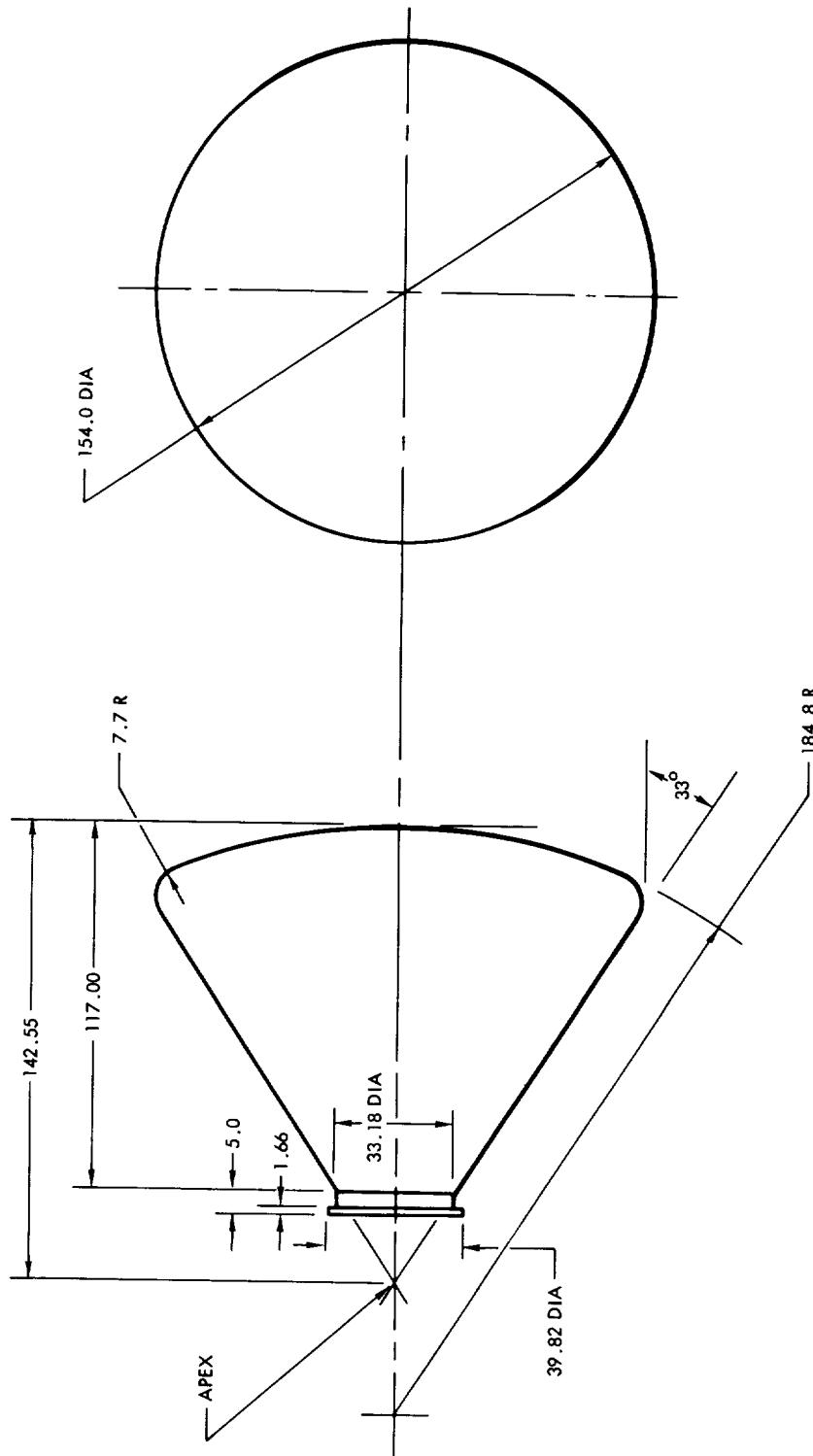
COMMAND MODULE C<sub>22</sub>

DRAWING NOT TO SCALE

COMMAND MODULE C<sub>23</sub>

FULL-SCALE DIMENSIONS IN INCHES

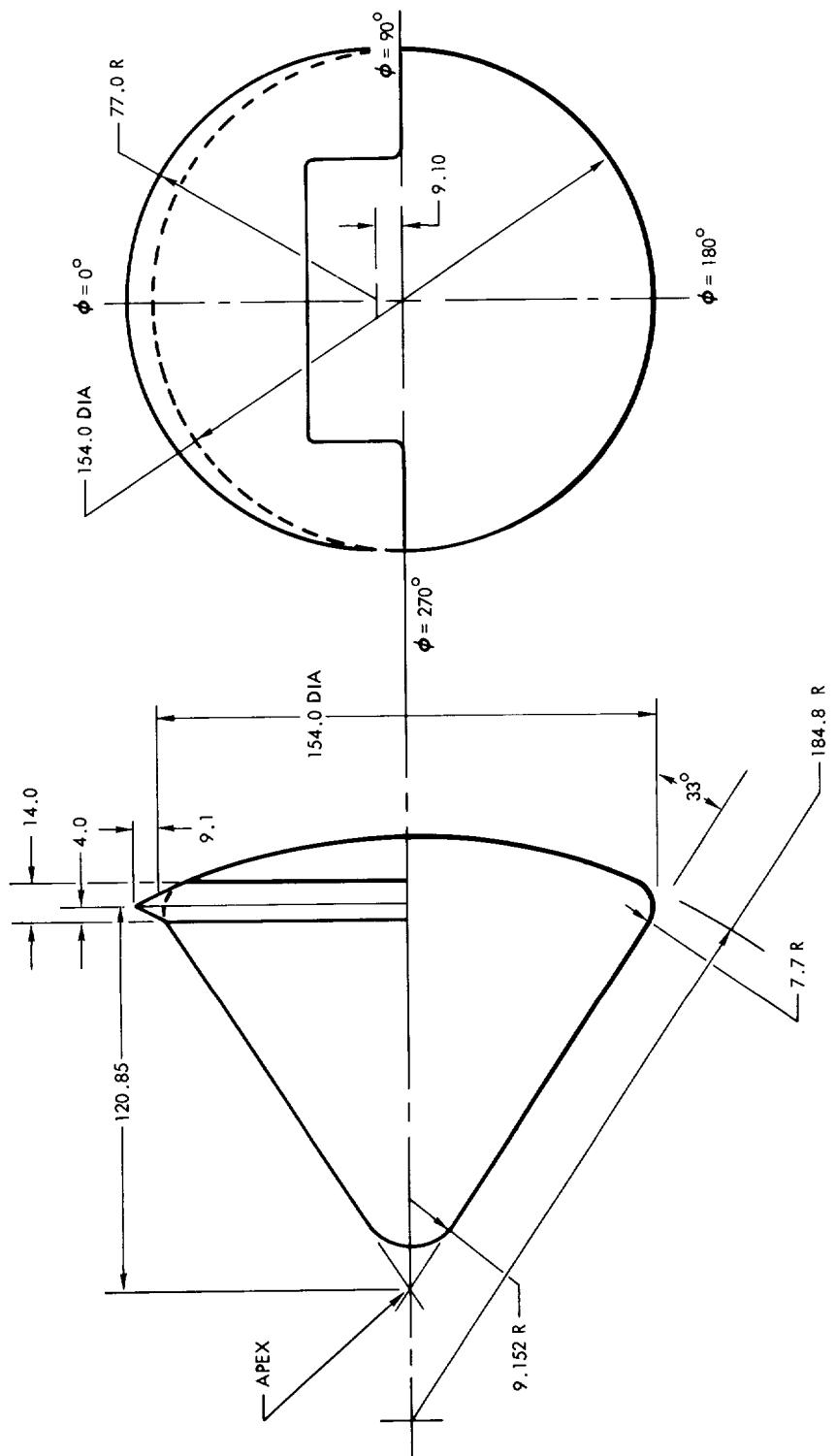
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C<sub>24</sub>

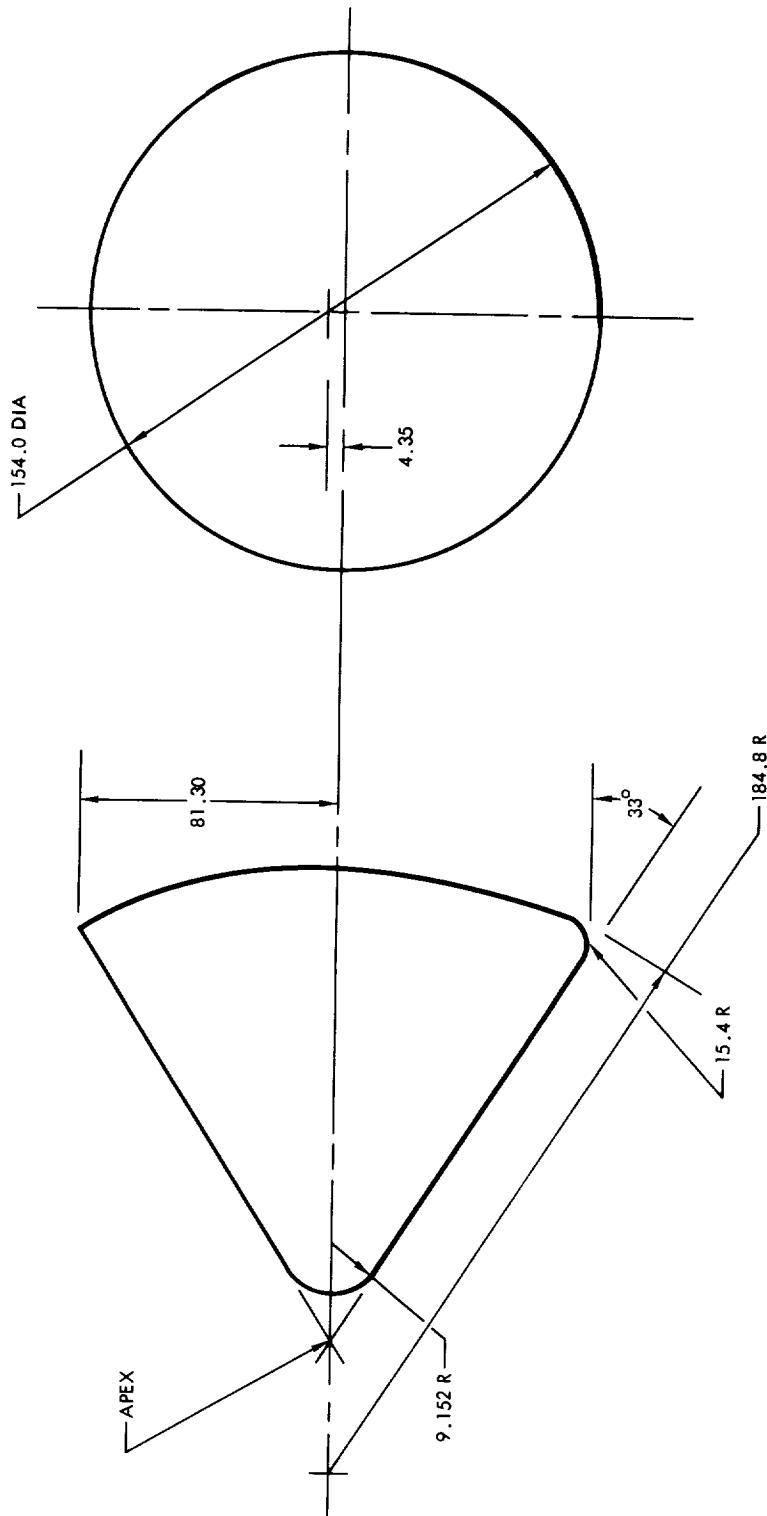
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

COMMAND MODULE C<sub>25</sub>

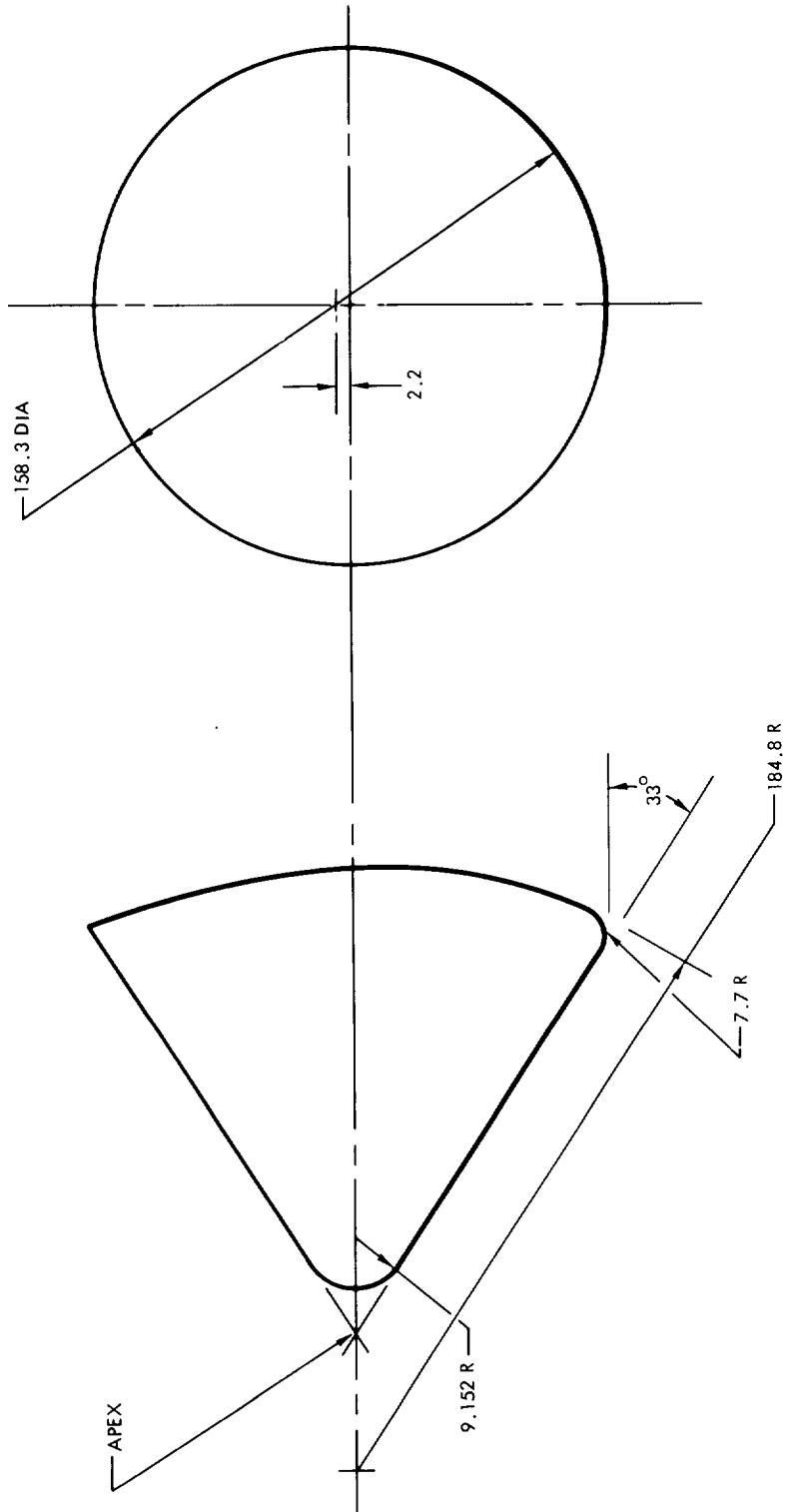
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

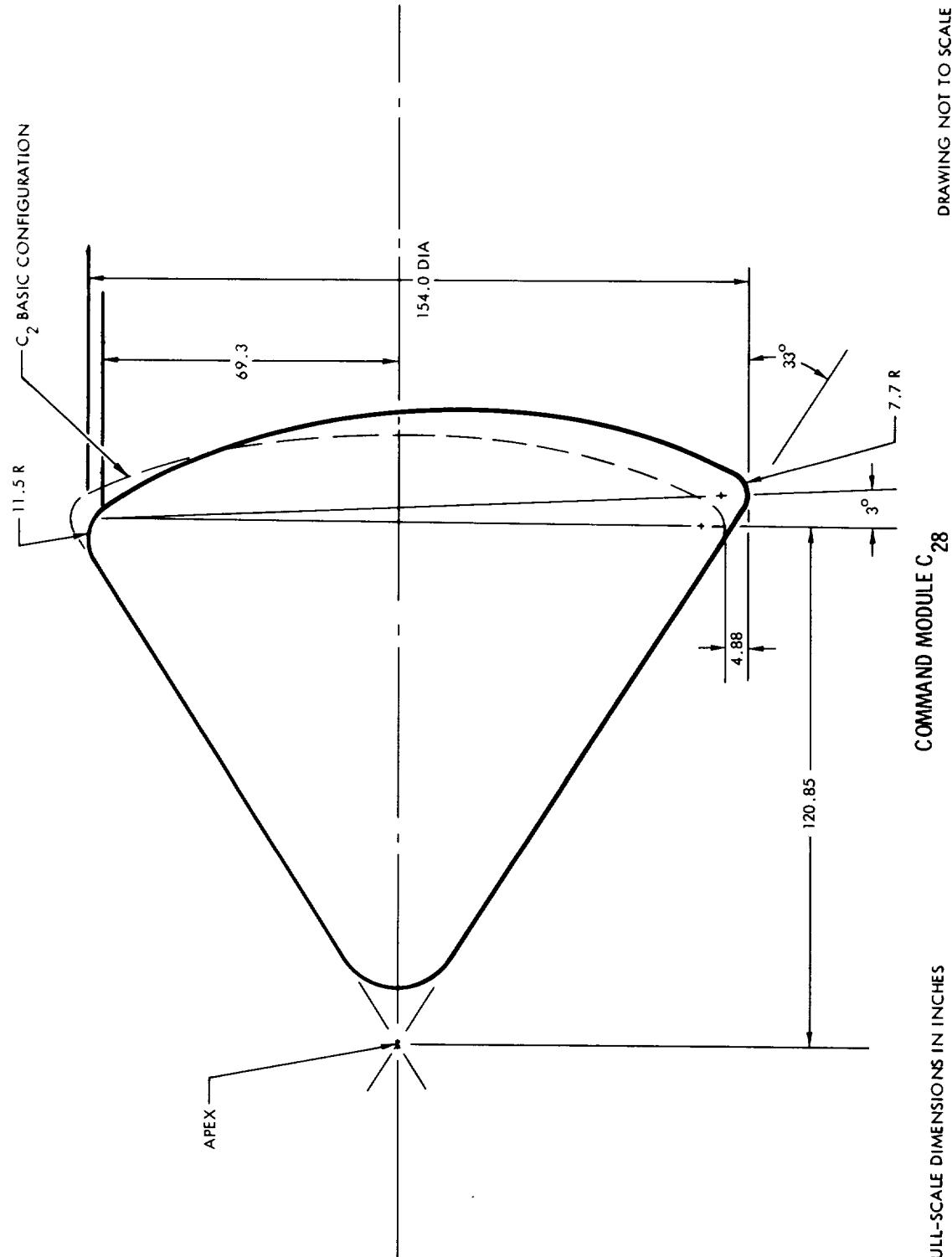
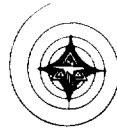
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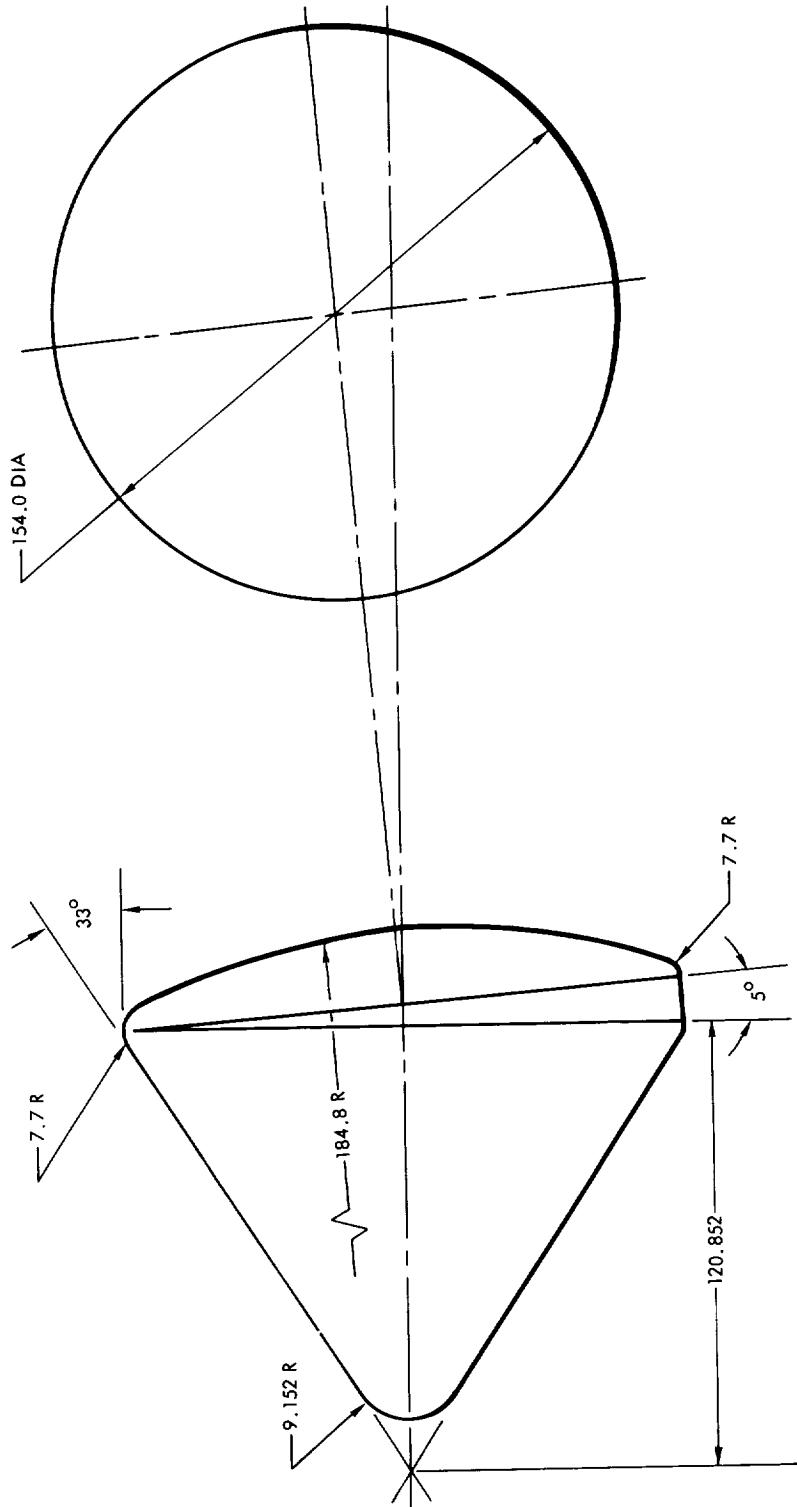
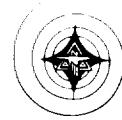
DRAWING NOT TO SCALE

COMMAND MODULE C<sub>27</sub>

FULL-SCALE DIMENSIONS IN INCHES

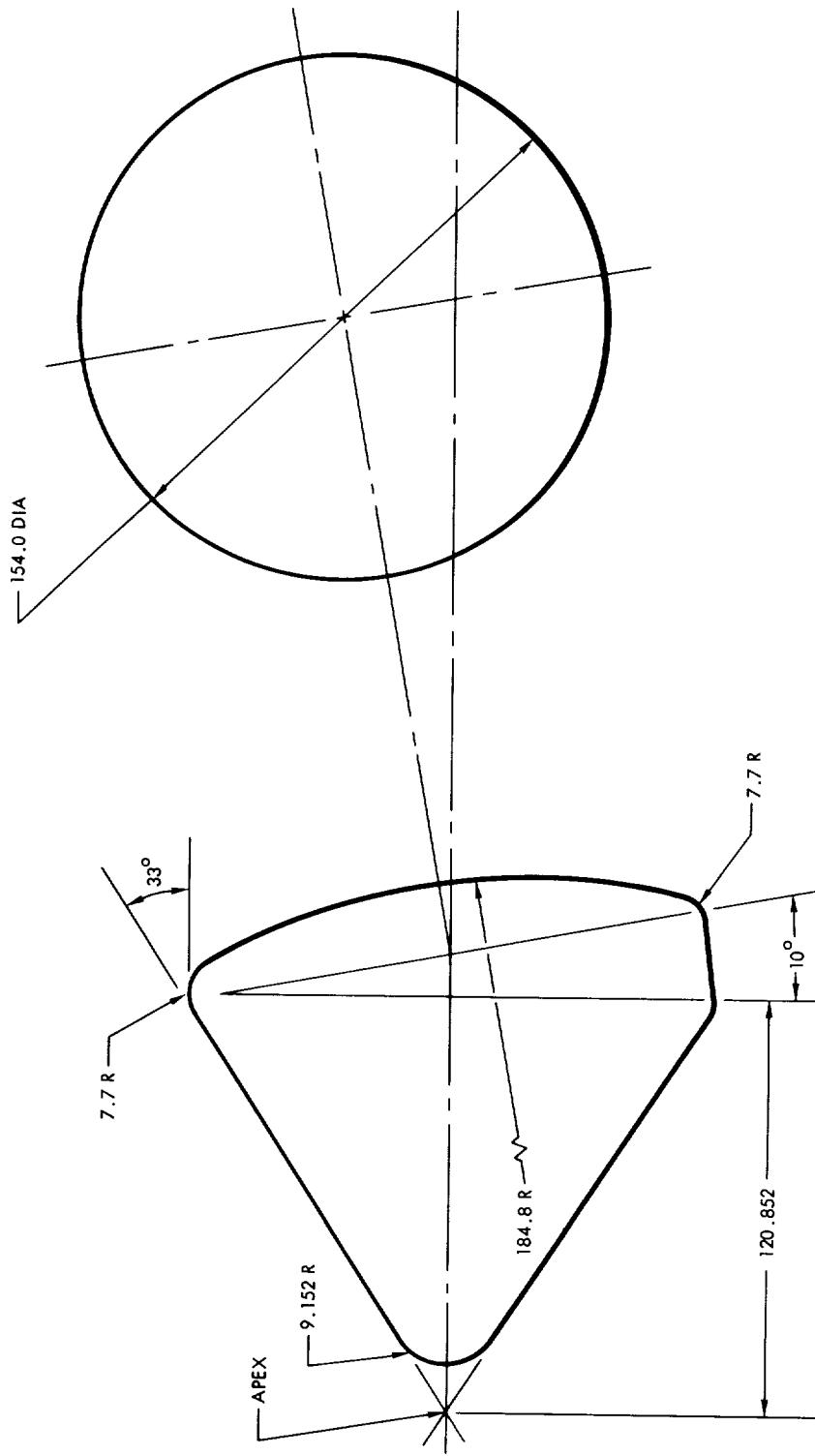
DRAWING NOT TO SCALE



COMMAND MODULE C<sub>29</sub>

FULL-SCALE DIMENSIONS IN INCHES

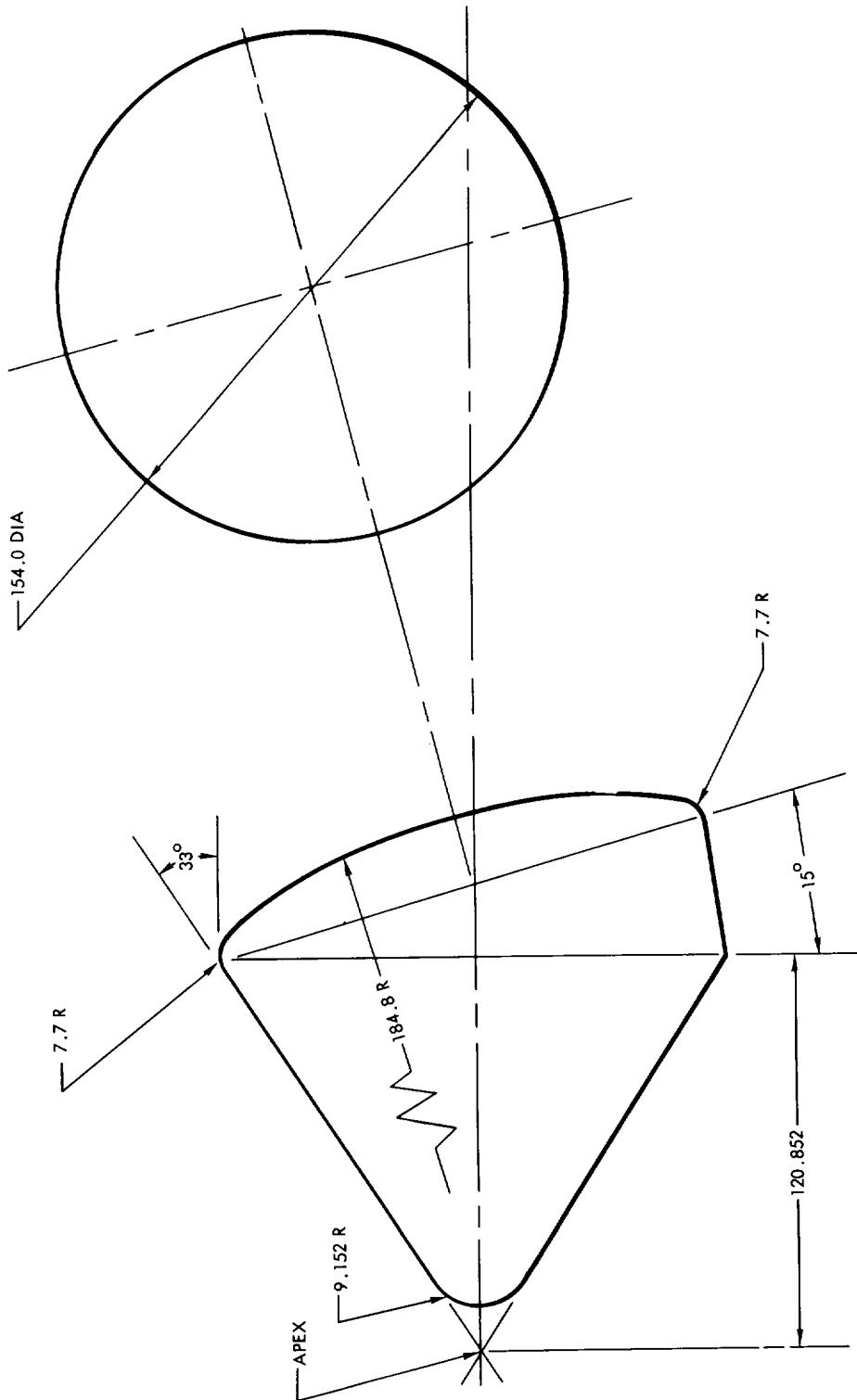
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C<sub>30</sub>

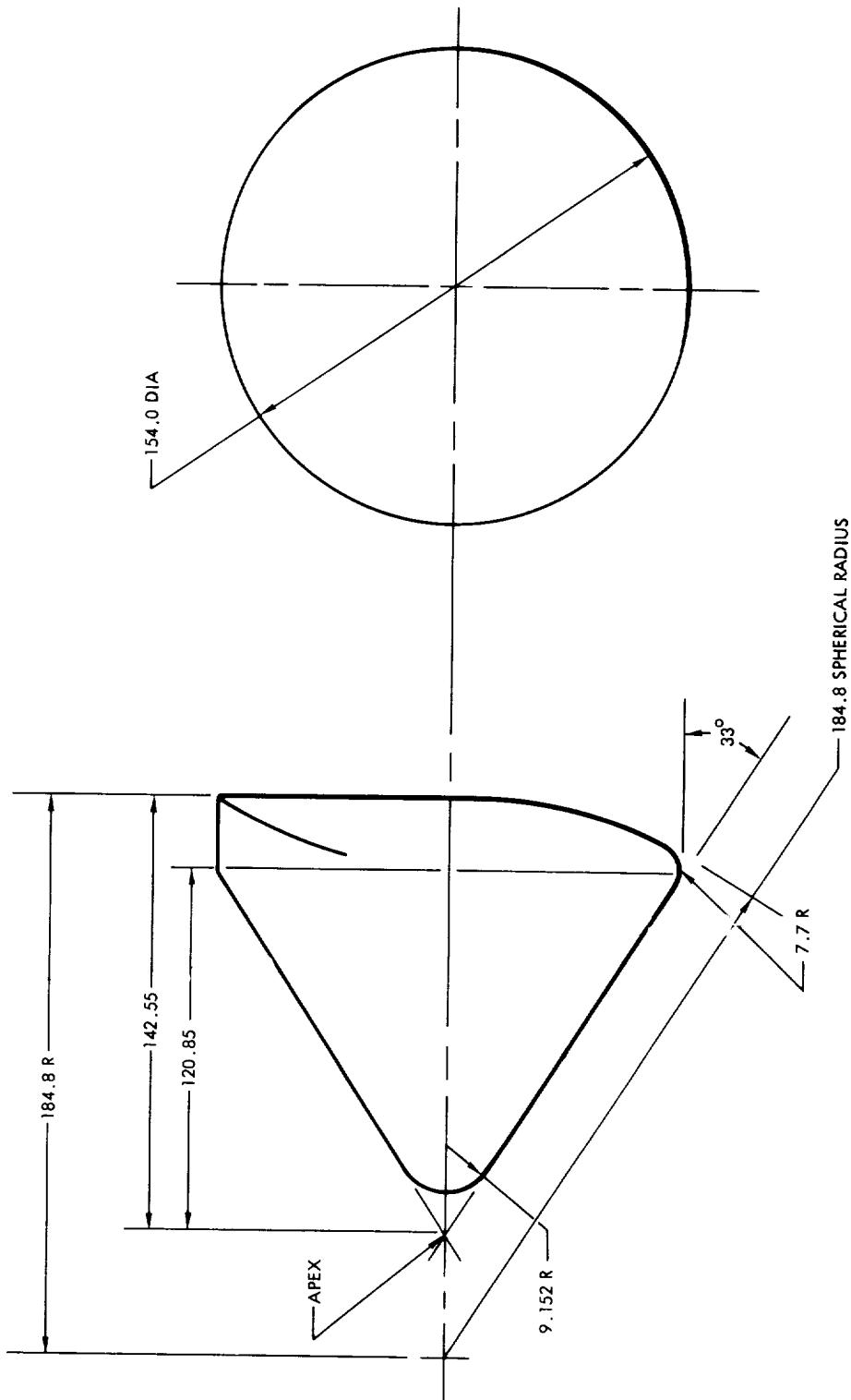
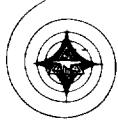
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

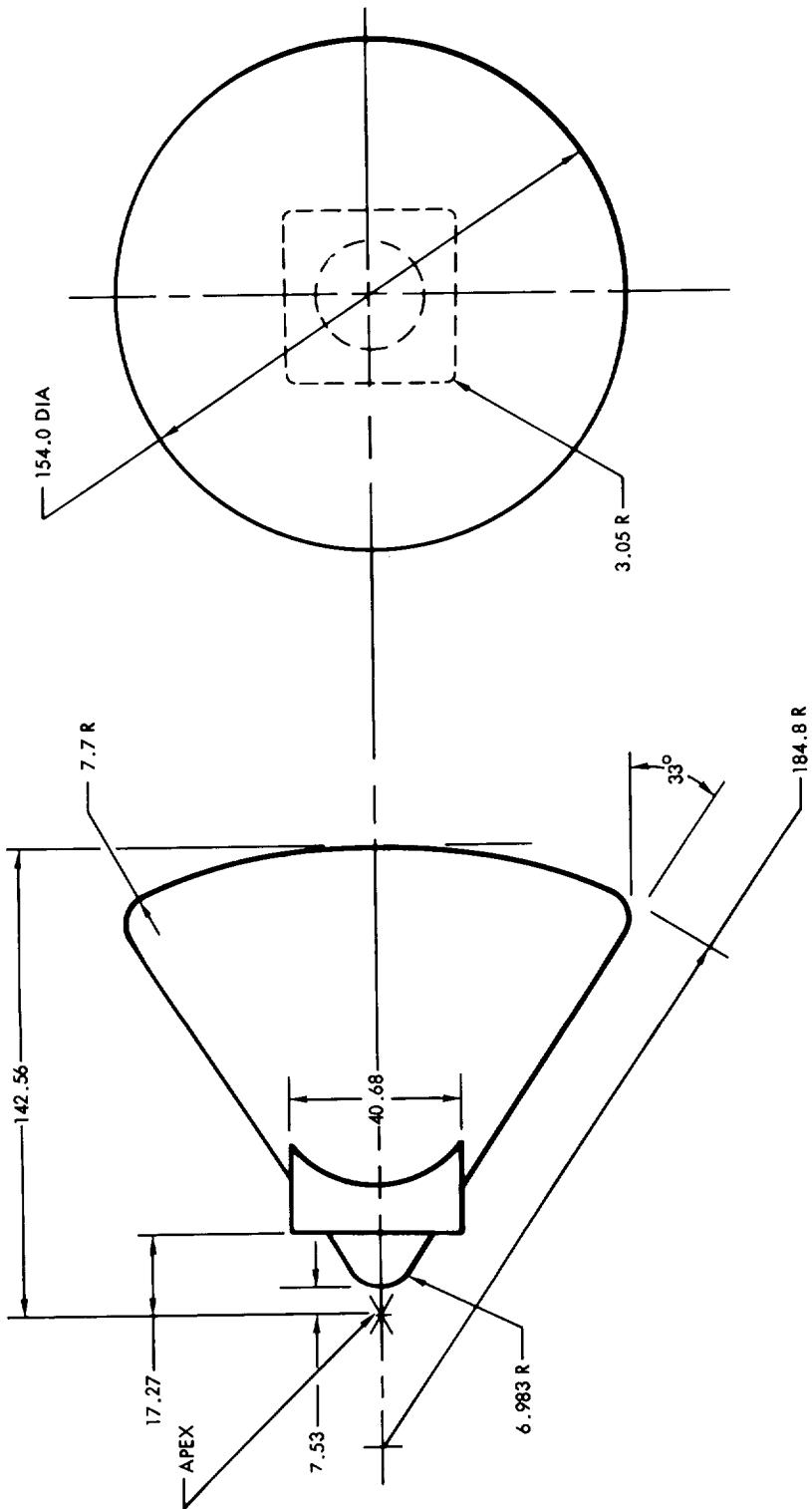
COMMAND MODULE C<sub>31</sub>

DRAWING NOT TO SCALE

COMMAND MODULE C<sub>32</sub>

FULL-SCALE DIMENSIONS IN INCHES

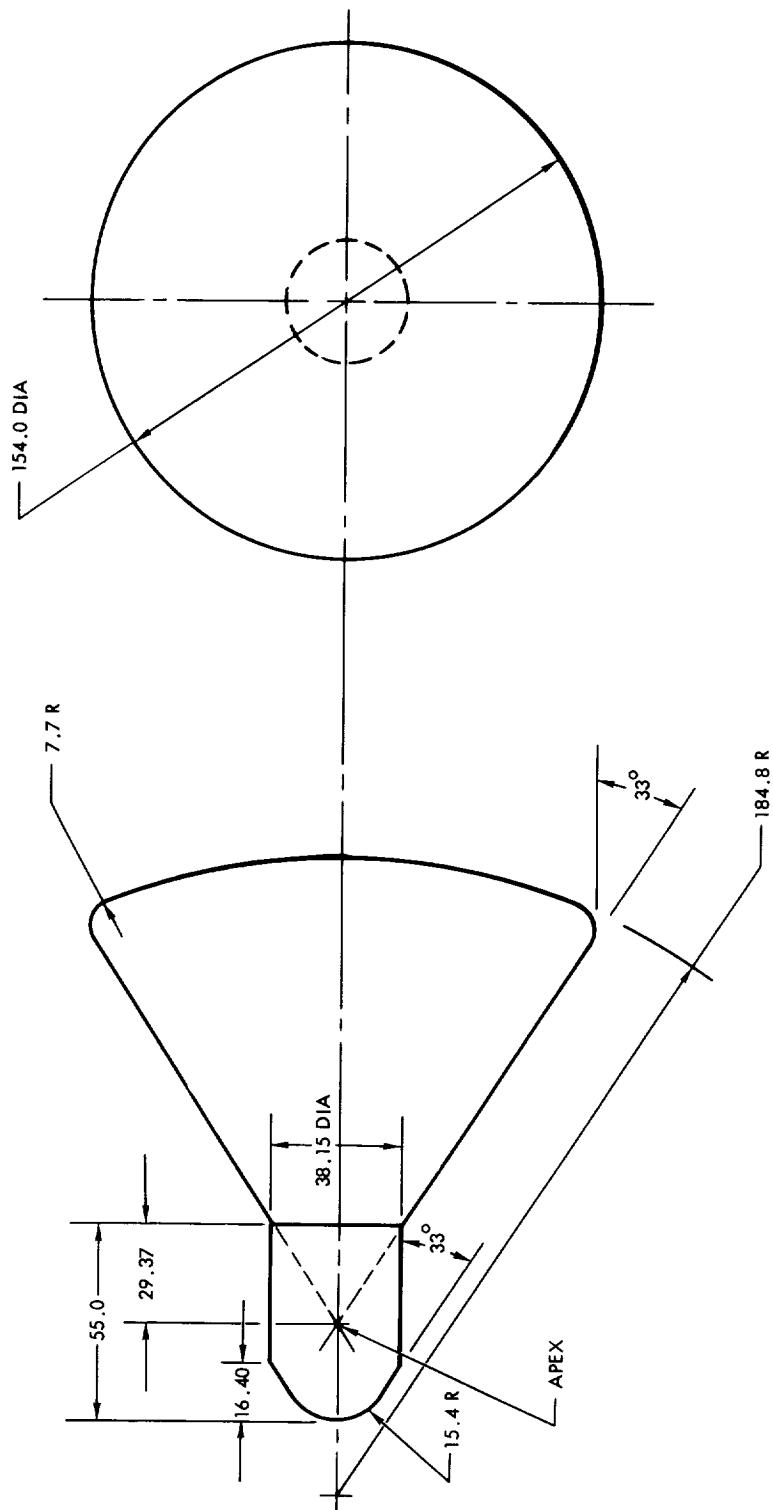
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

FULL-SCALE DIMENSIONS IN INCHES

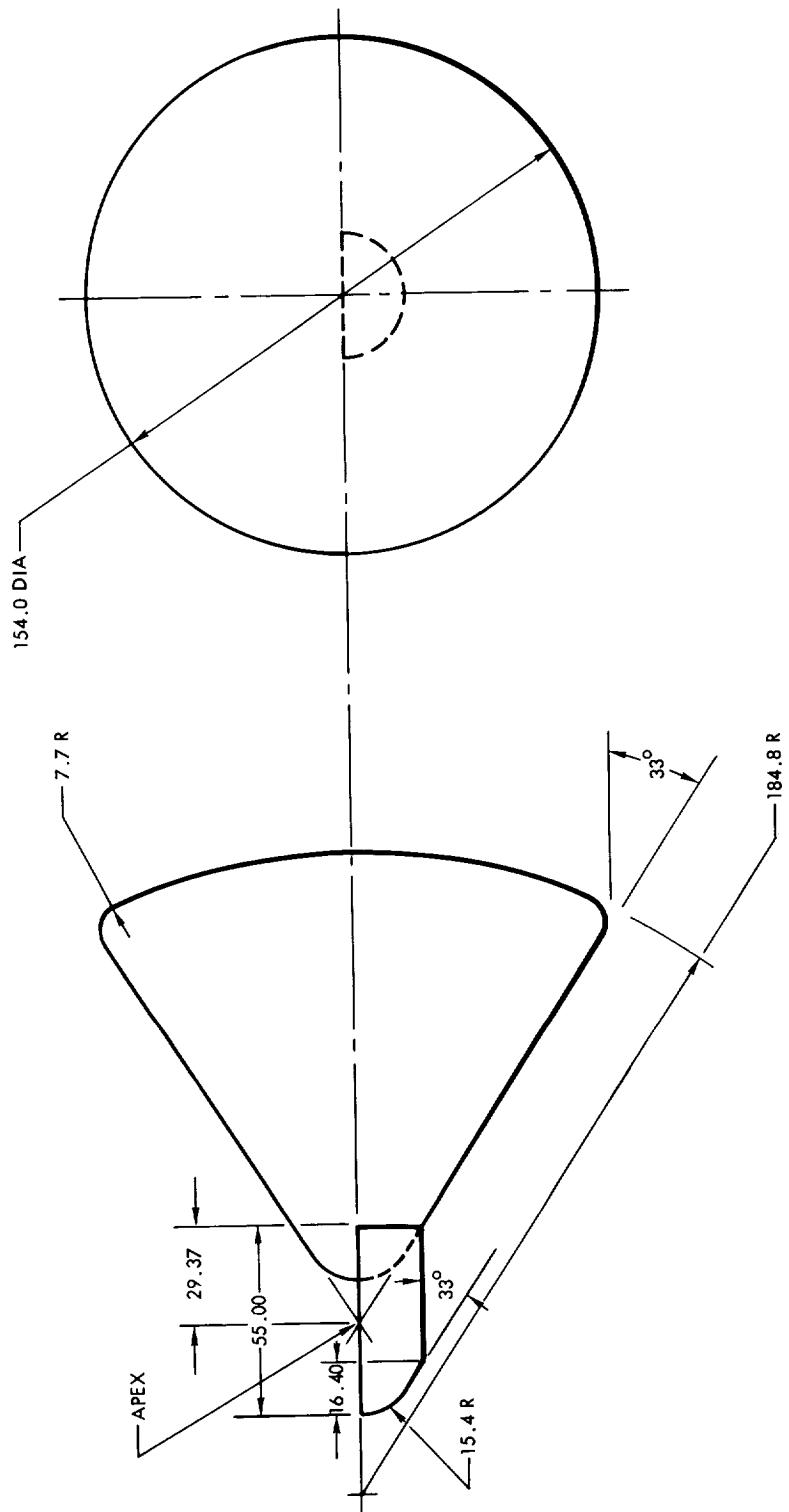
COMMAND MODULE C<sub>33</sub>



FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C<sub>34</sub>

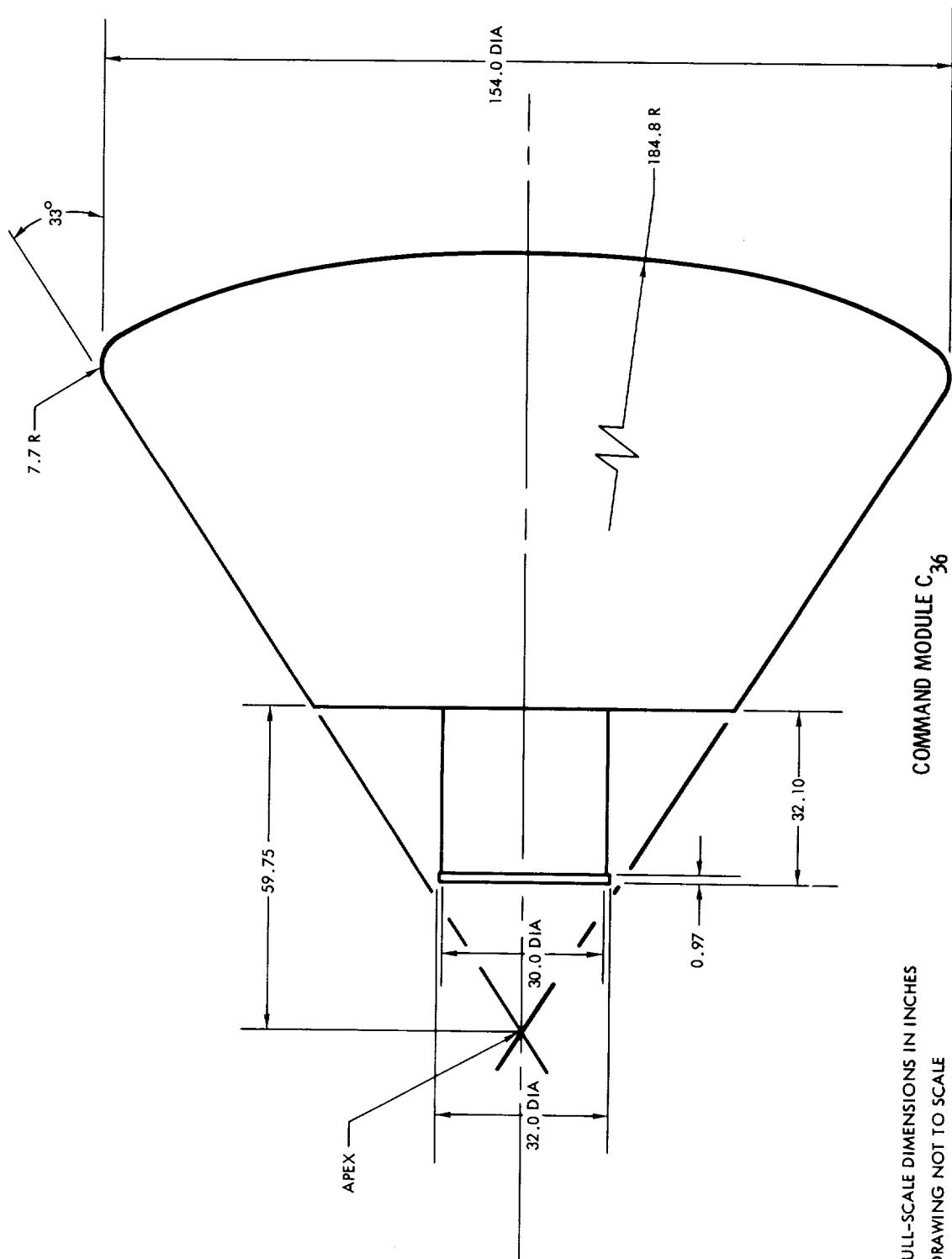
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

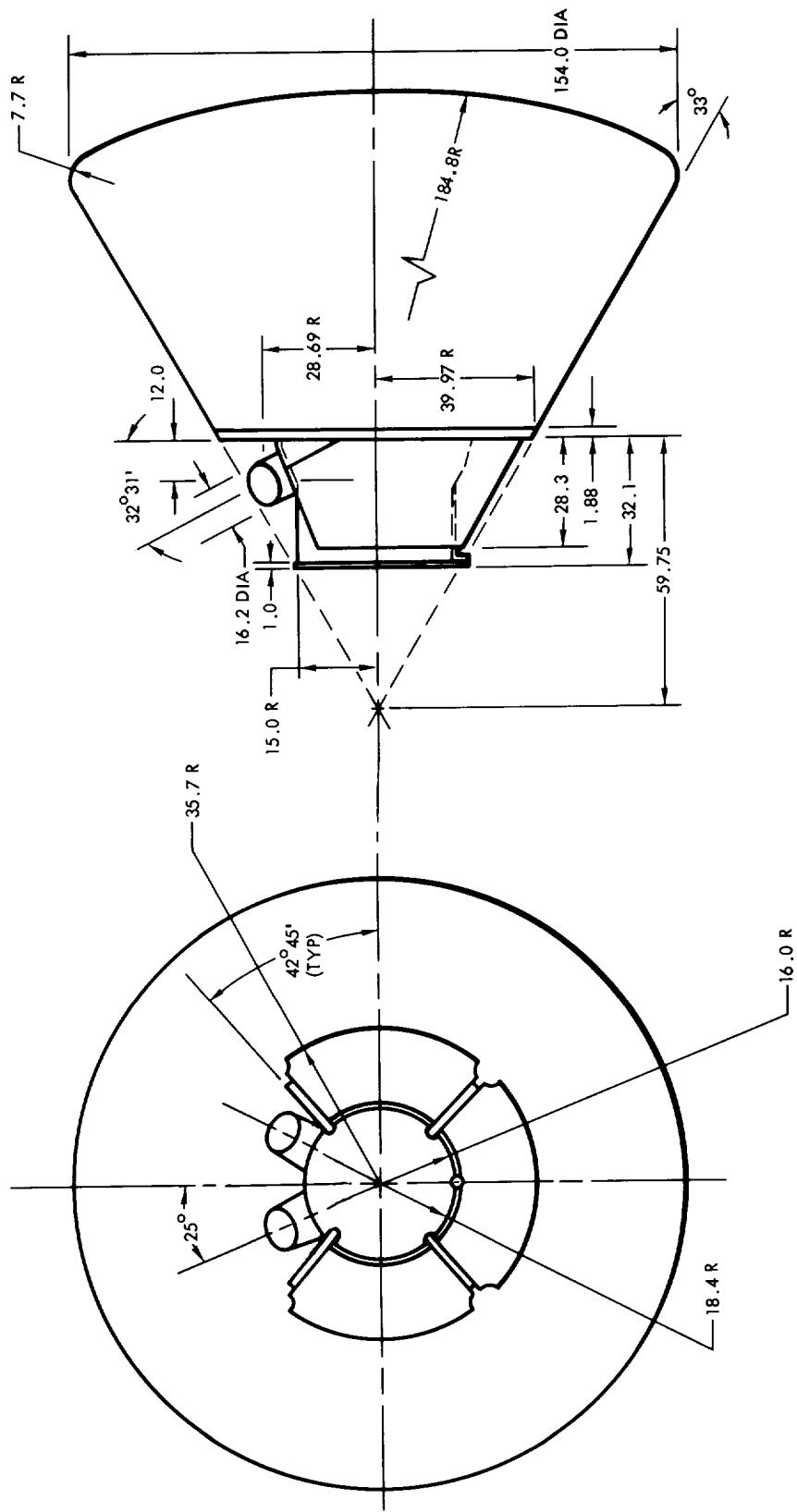
COMMAND MODULE C<sub>35</sub>

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES  
DRAWING NOT TO SCALE

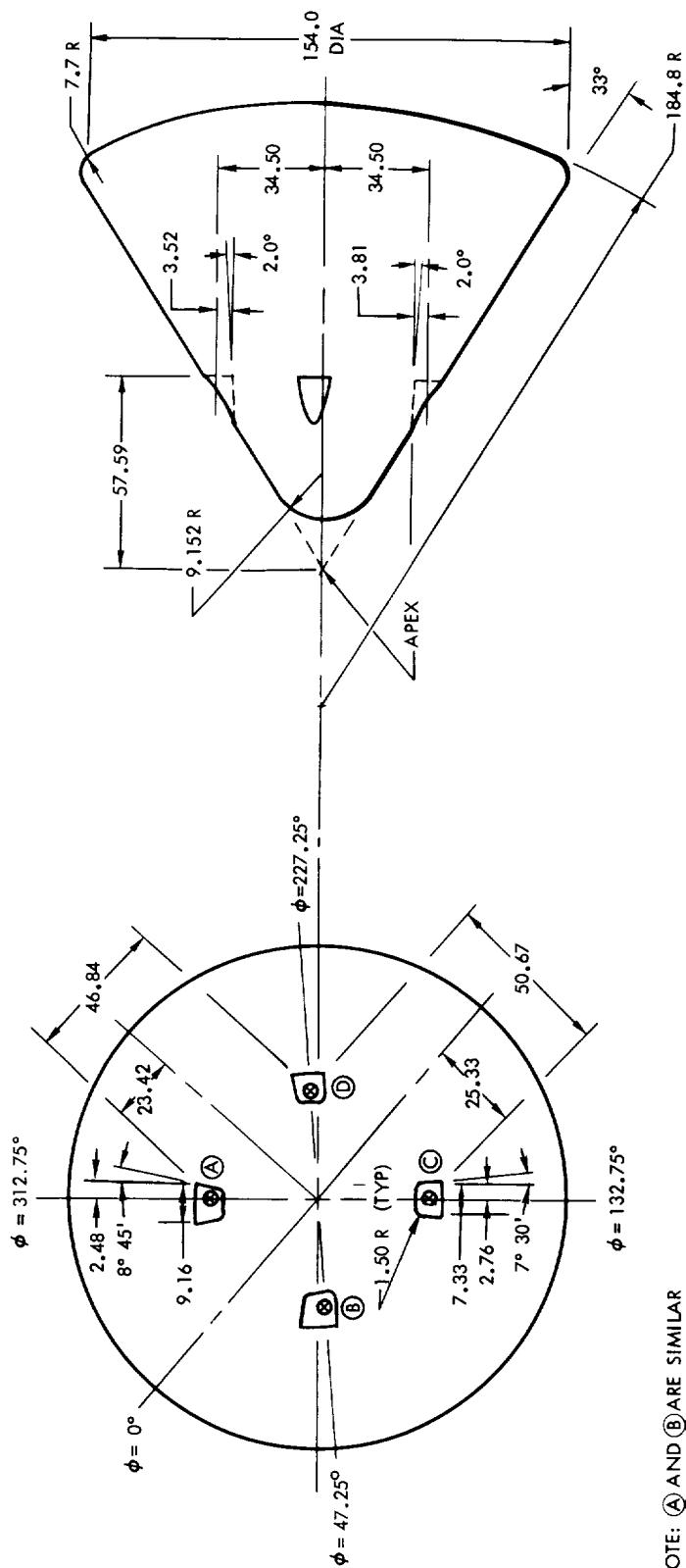
COMMAND MODULE C<sub>36</sub>



FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C<sub>37</sub>

DRAWING NOT TO SCALE

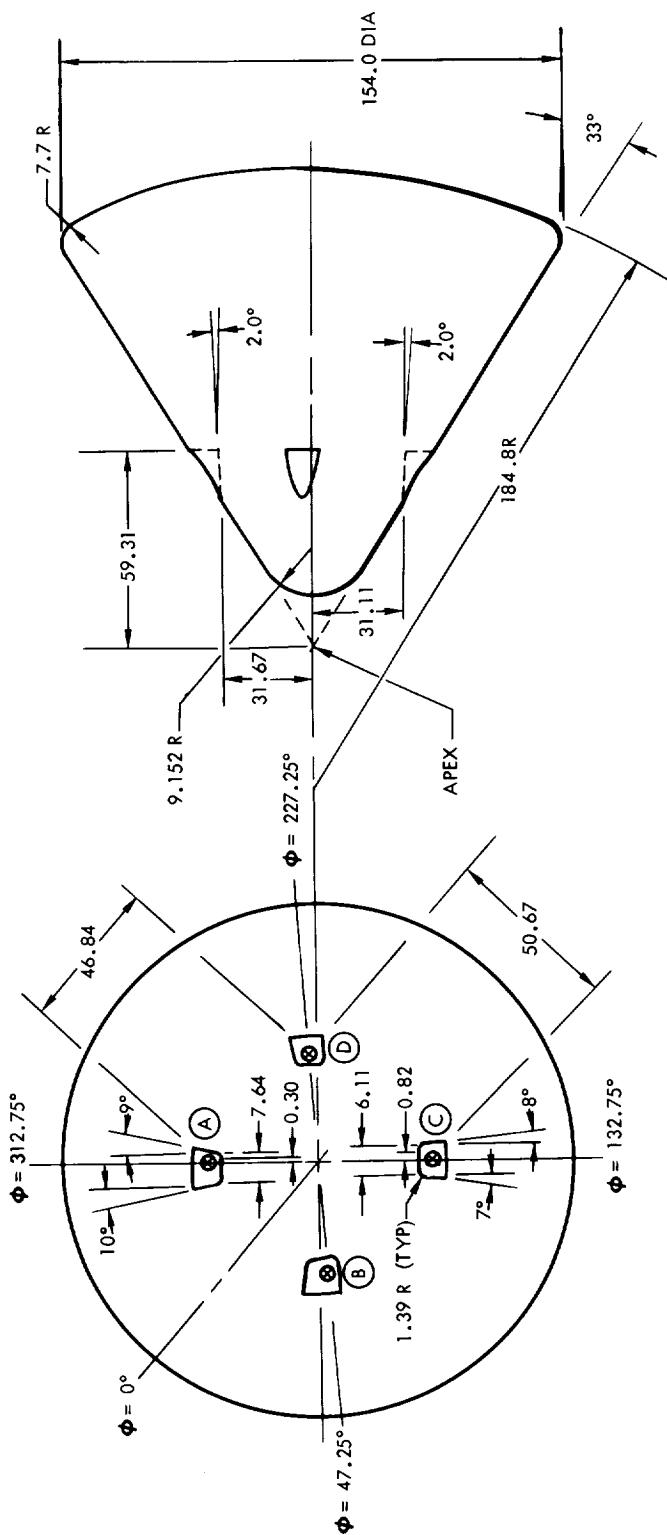
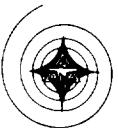


NOTE: (A) AND (B) ARE SIMILAR  
(C) AND (D) ARE SIMILAR

### FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C38  
(DEFINED)

DRAWING NOT TO SCALE

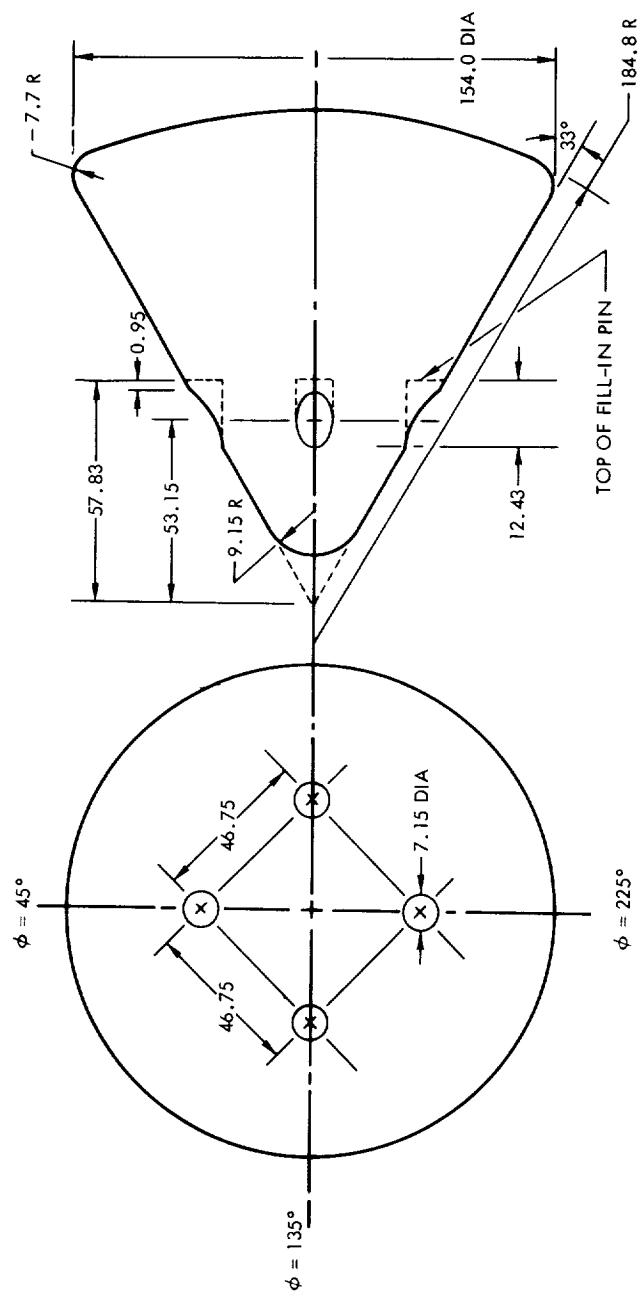


NOTE: A AND D ARE SIMILAR  
B AND C ARE SIMILAR  
SAME AS C38 DEFINED  
EXCEPT AS NOTED

COMMAND MODULE C38  
(FS-3 AND PS-3)

FULL-SCALE DIMENSIONS IN INCHES

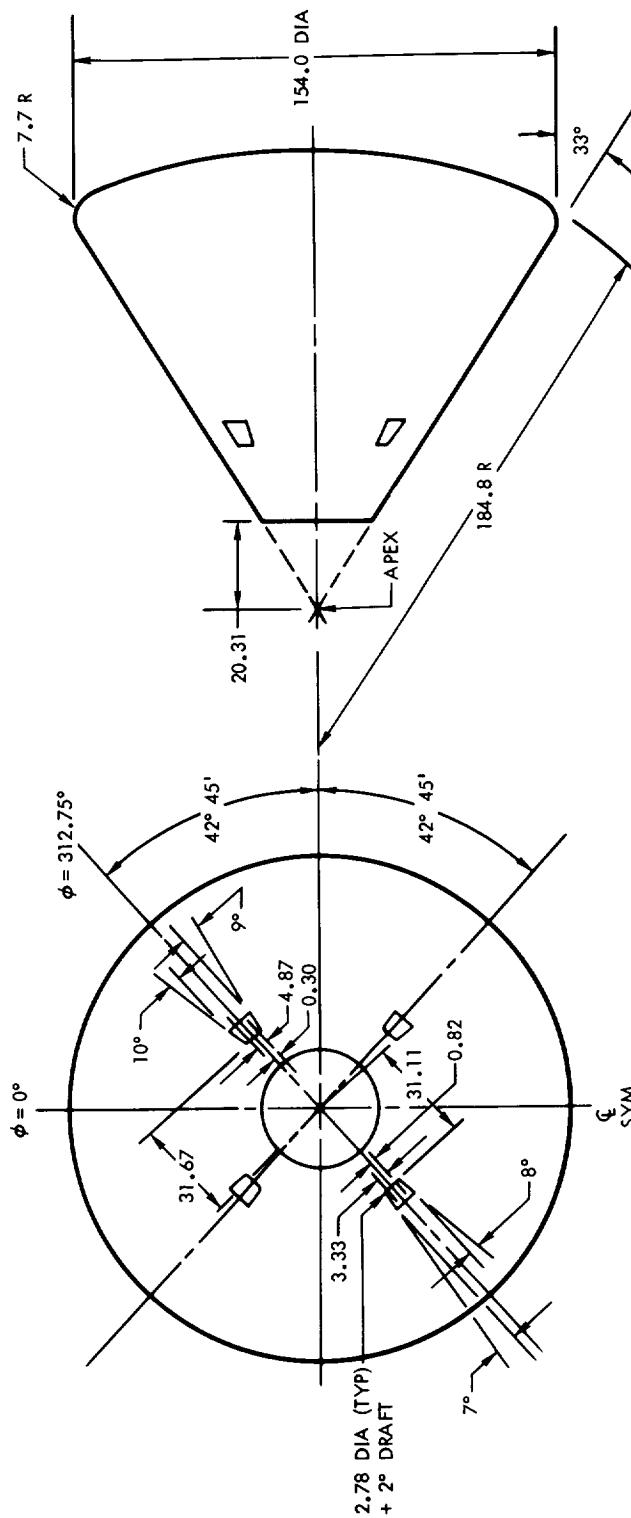
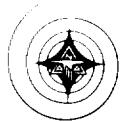
DRAWING NOT TO SCALE



COMMAND MODULE C39

FULL-SCALE DIMENSIONS IN INCHES

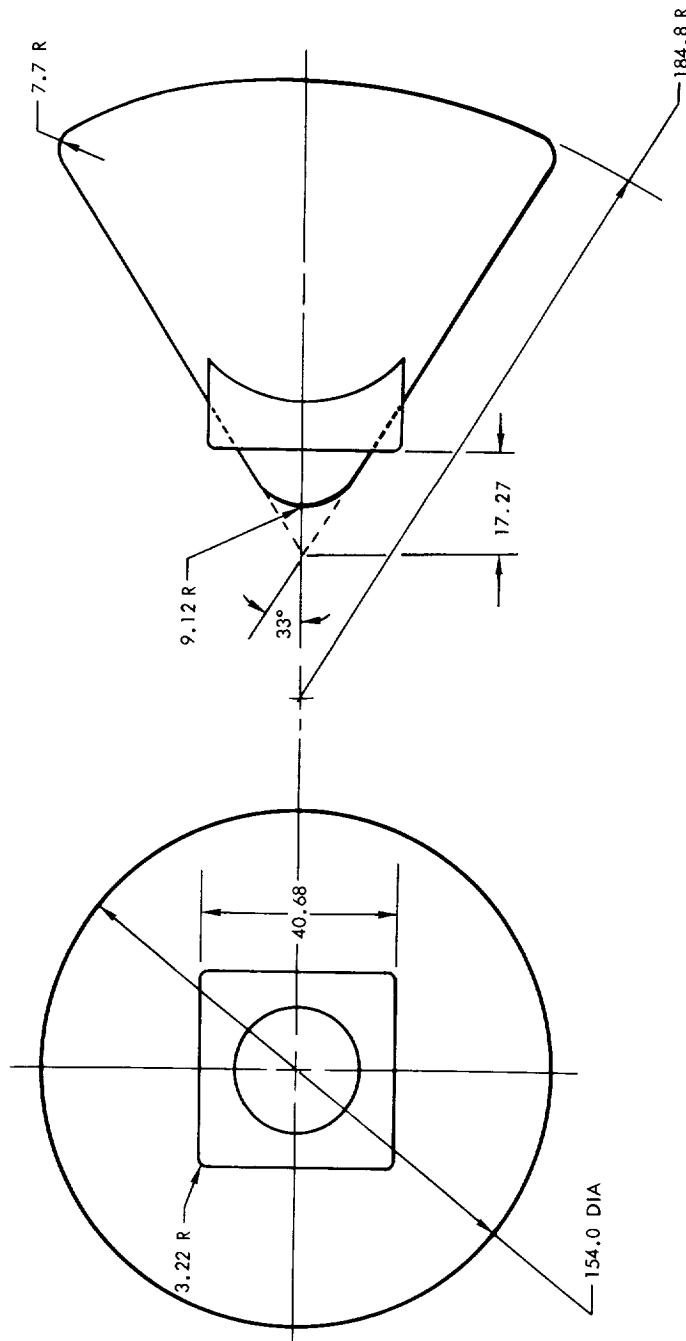
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

## COMMAND MODULE C40

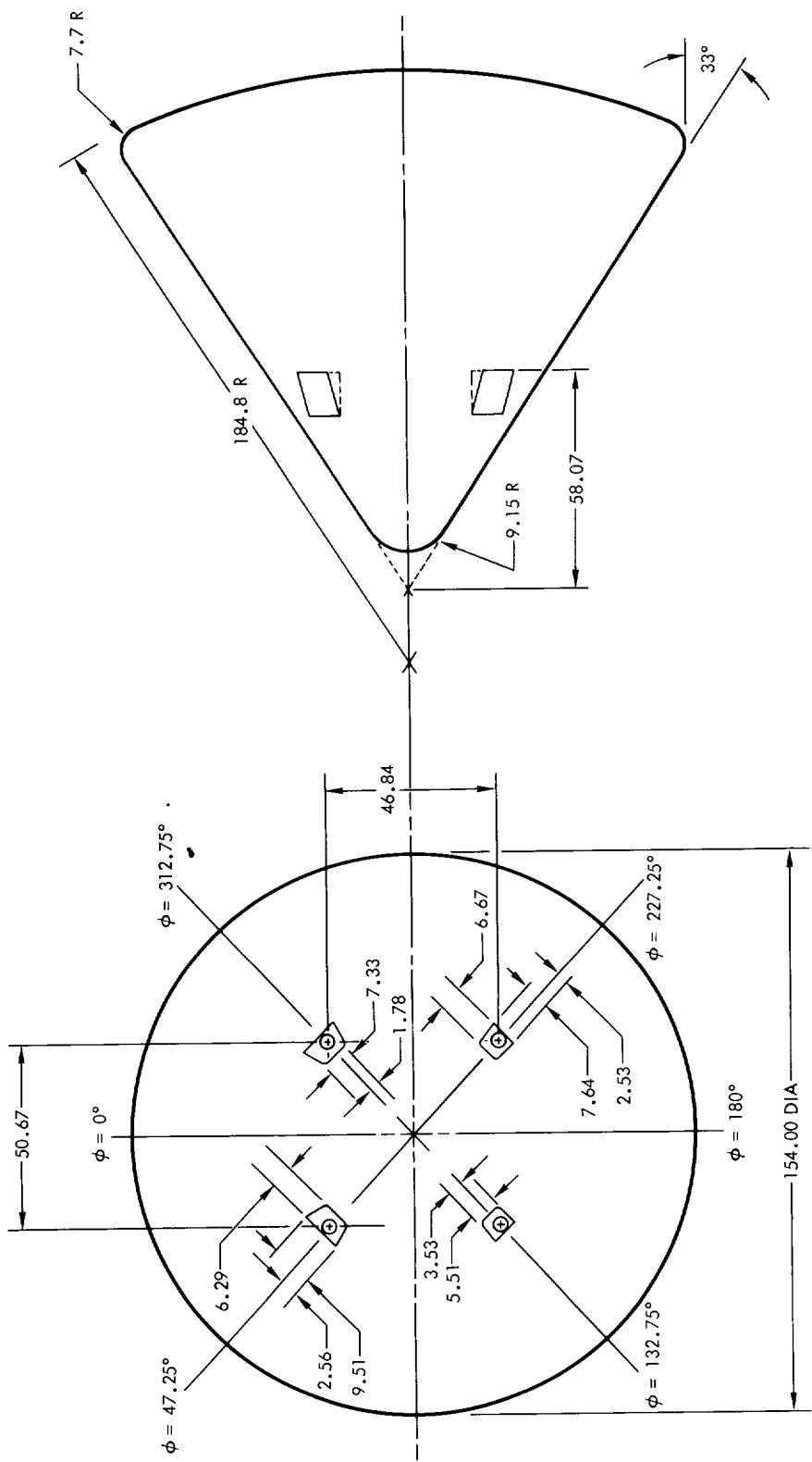
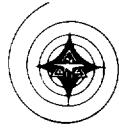
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

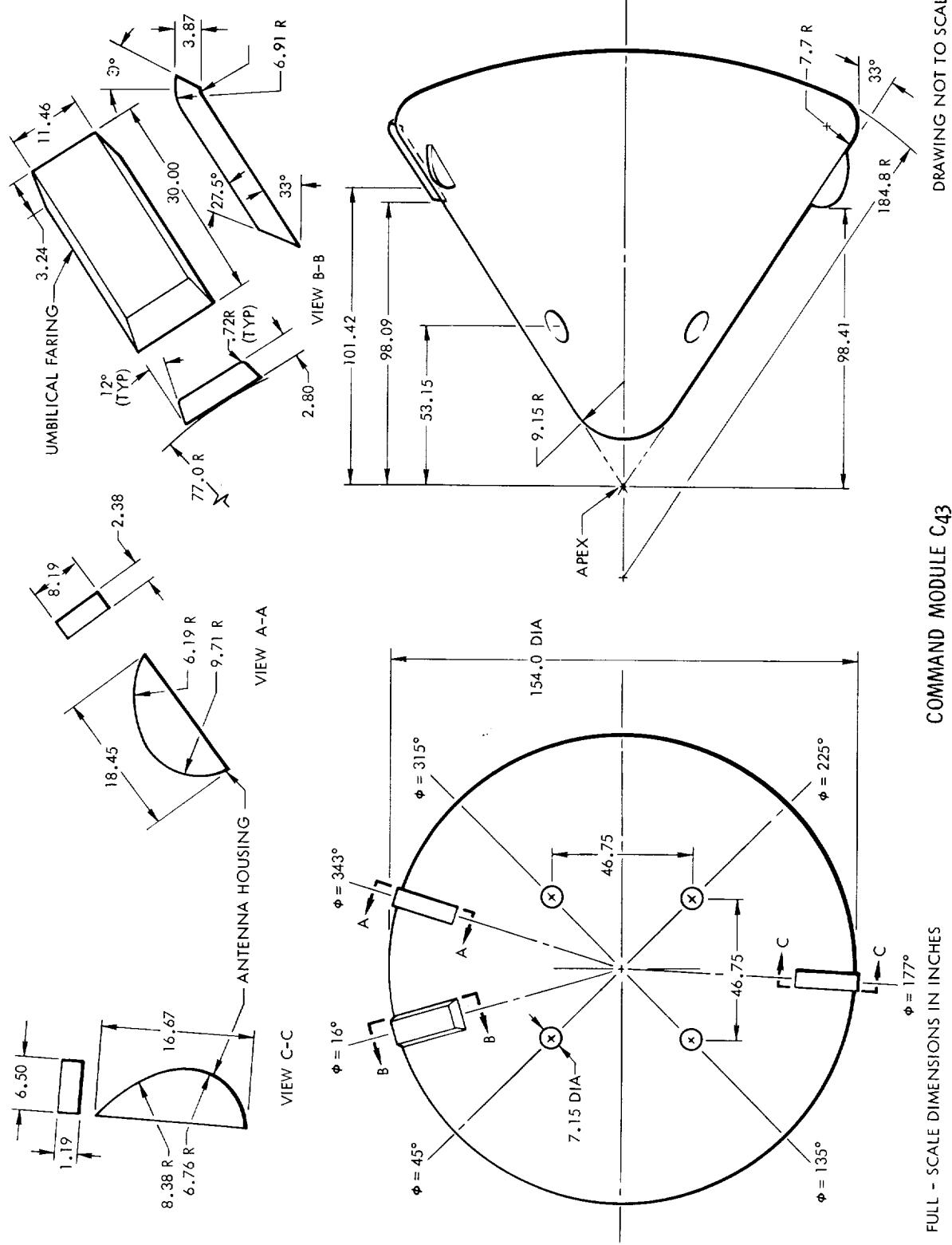
COMMAND MODULE C41

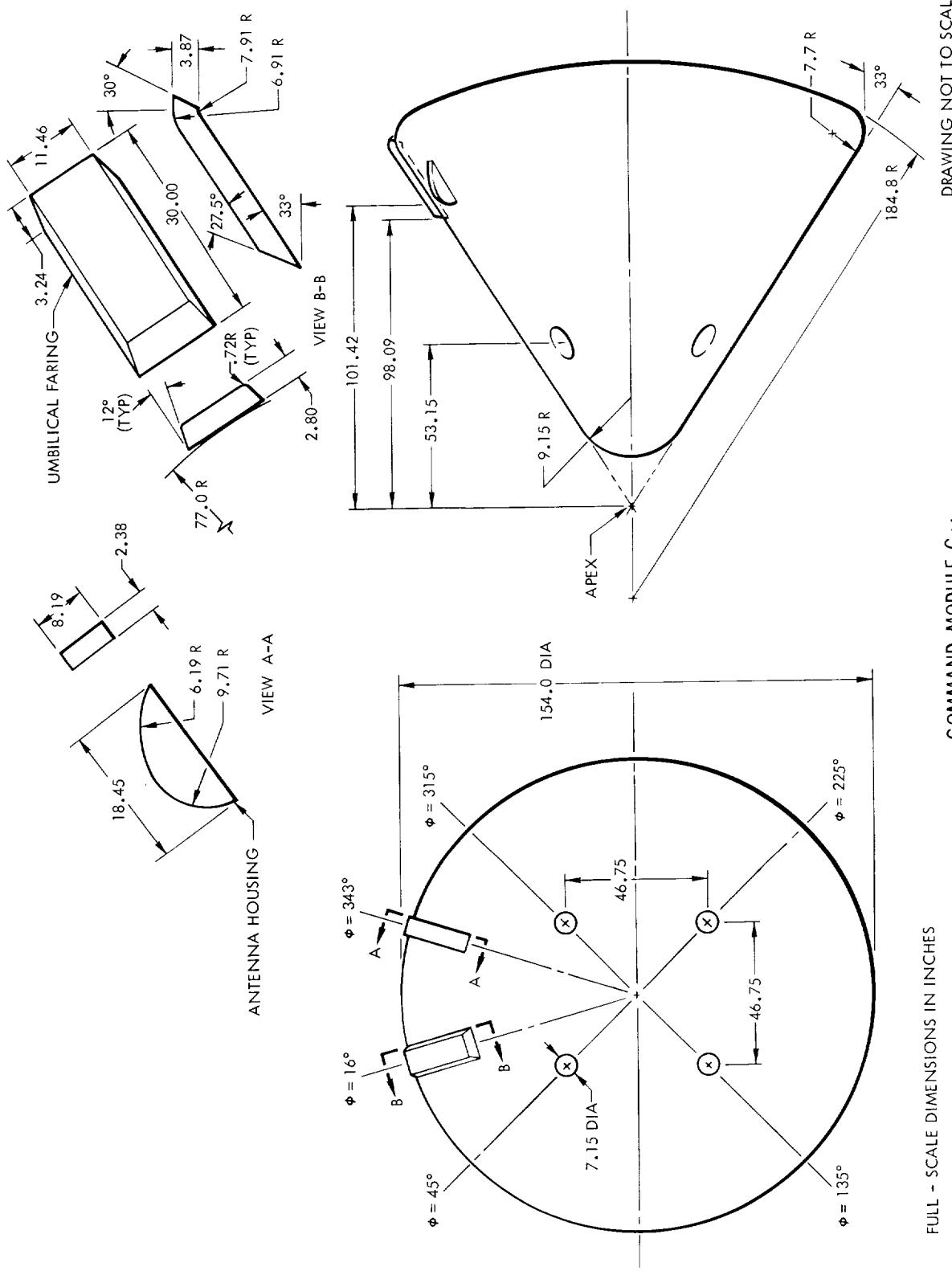


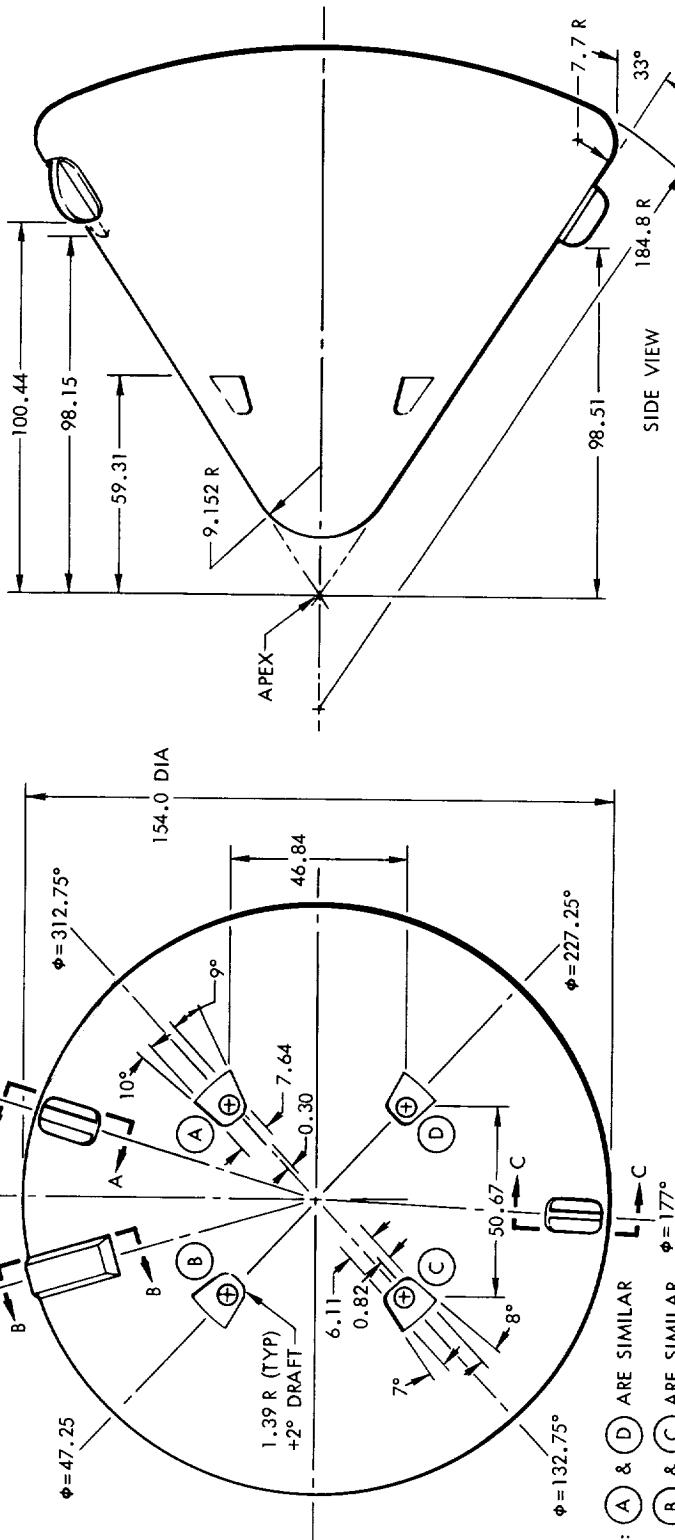
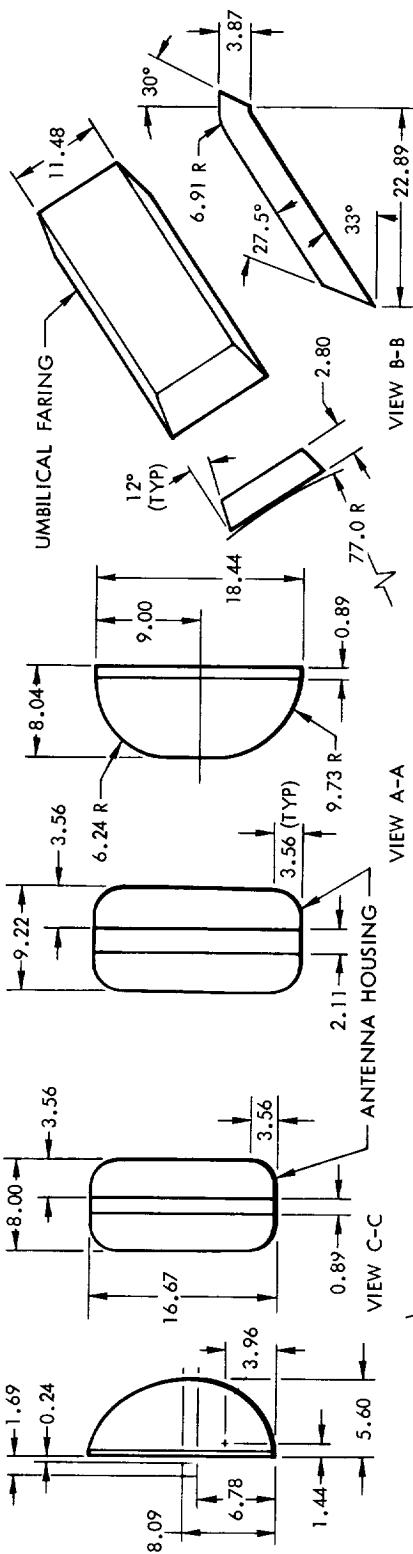
## FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C42

DRAWING NOT TO SCALE





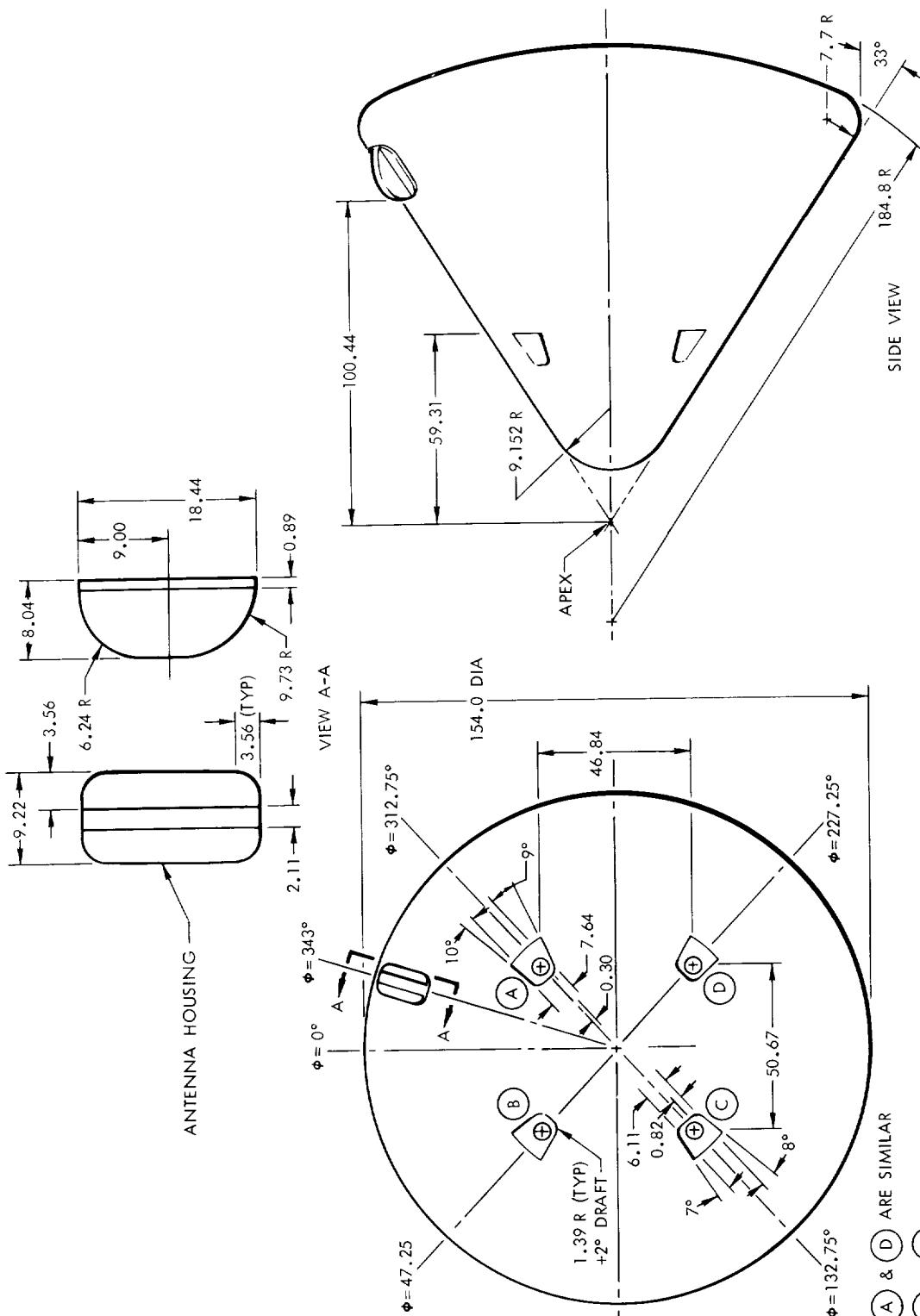


NOTE: (A) & (D) ARE SIMILAR  
(B) & (C) ARE SIMILAR

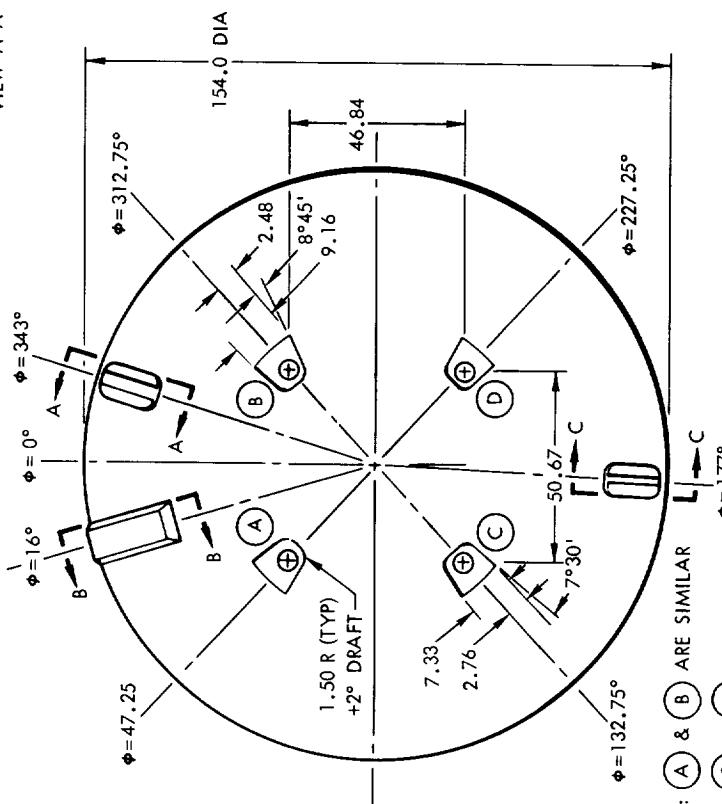
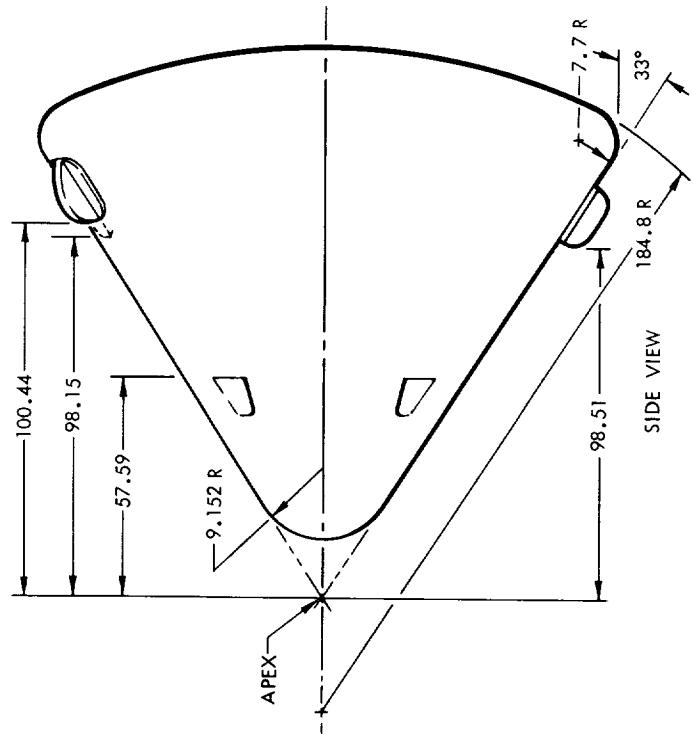
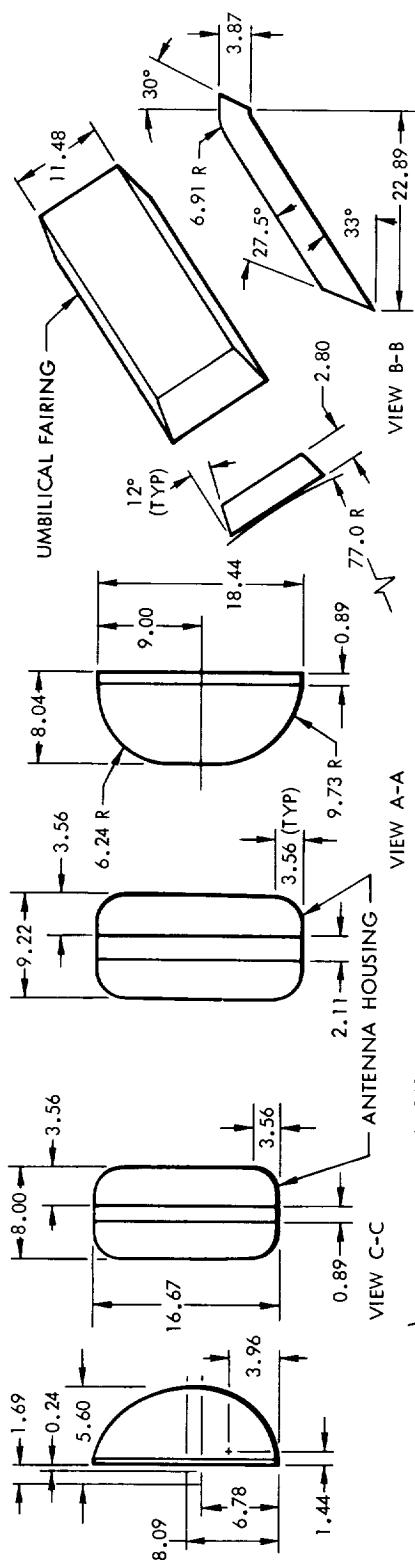
$\phi = 177^\circ$   
FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C45

DRAWING NOT TO SCALE



COMMAND MODULE C46



NOTE: (A) & (B) ARE SIMILAR

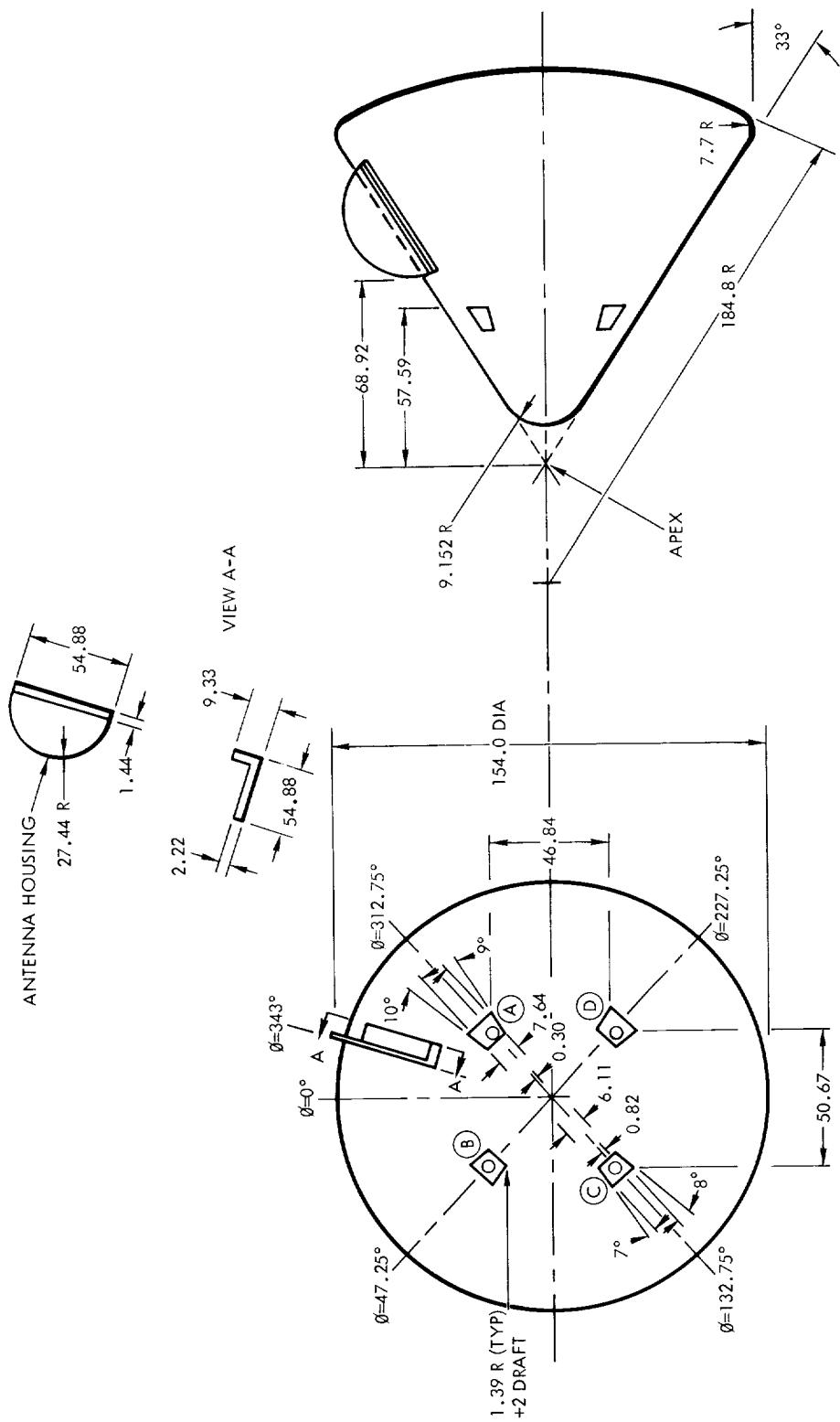
(C) & (D) ARE SIMILAR

$\theta = 177^\circ$

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

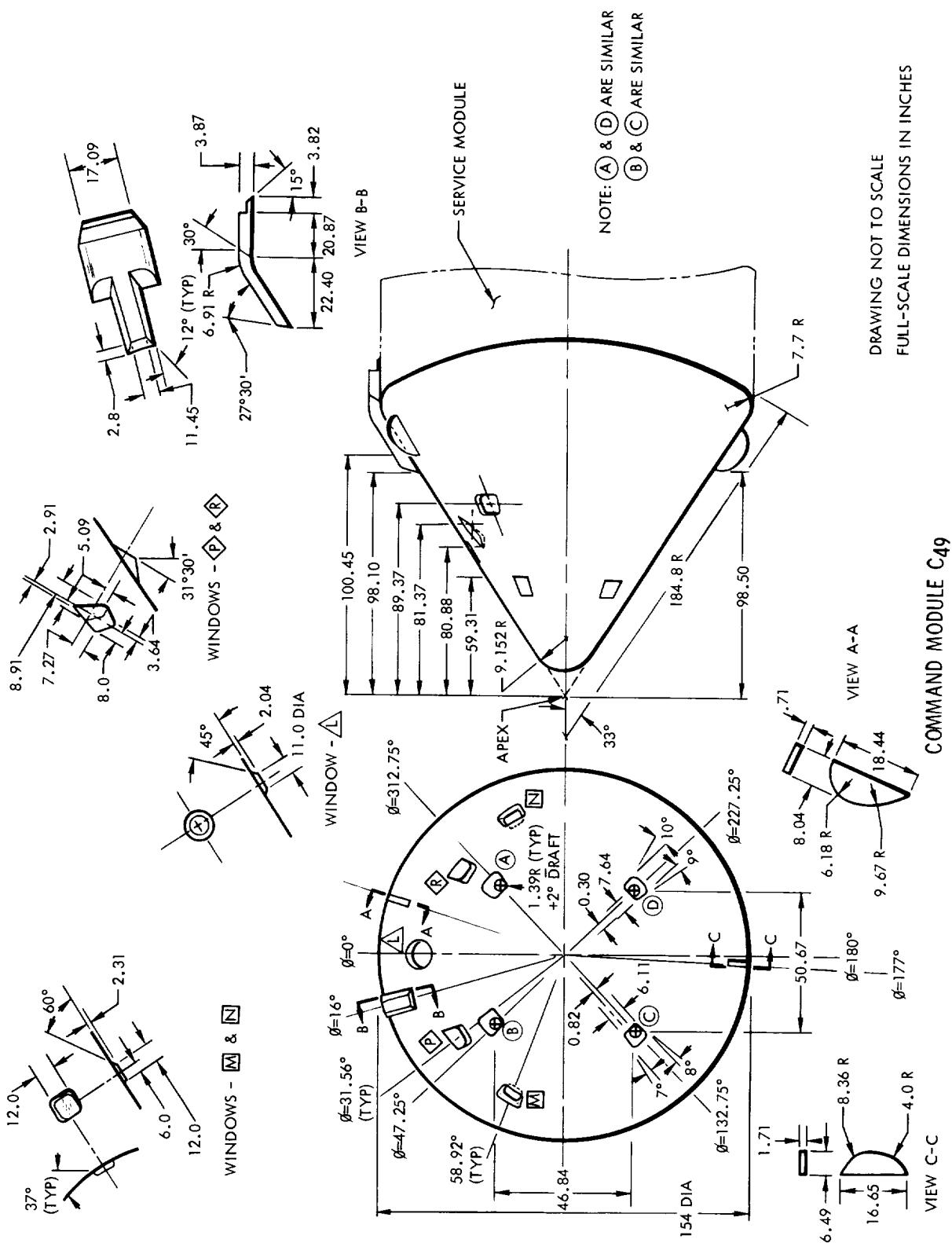
COMMAND MODULE C47

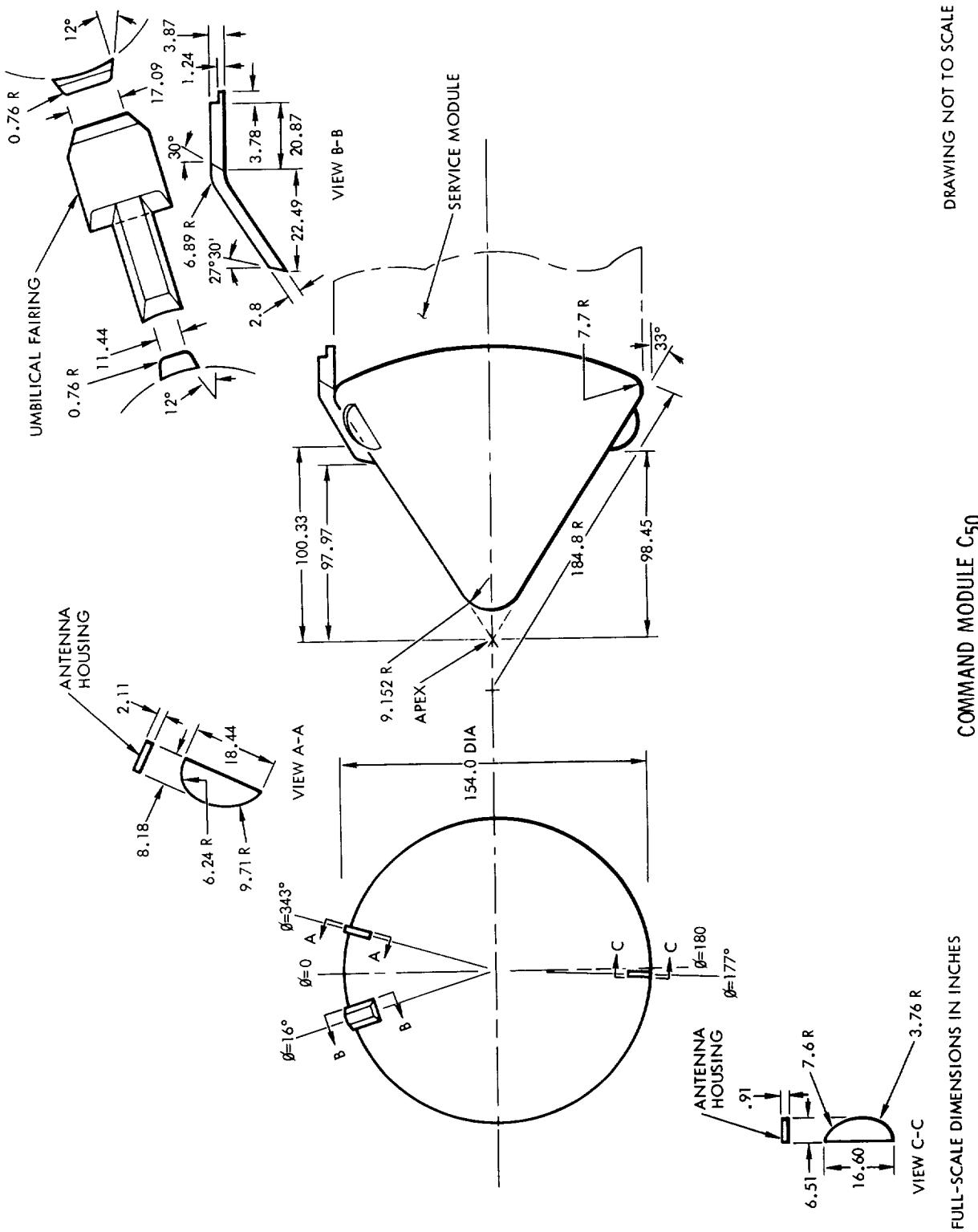


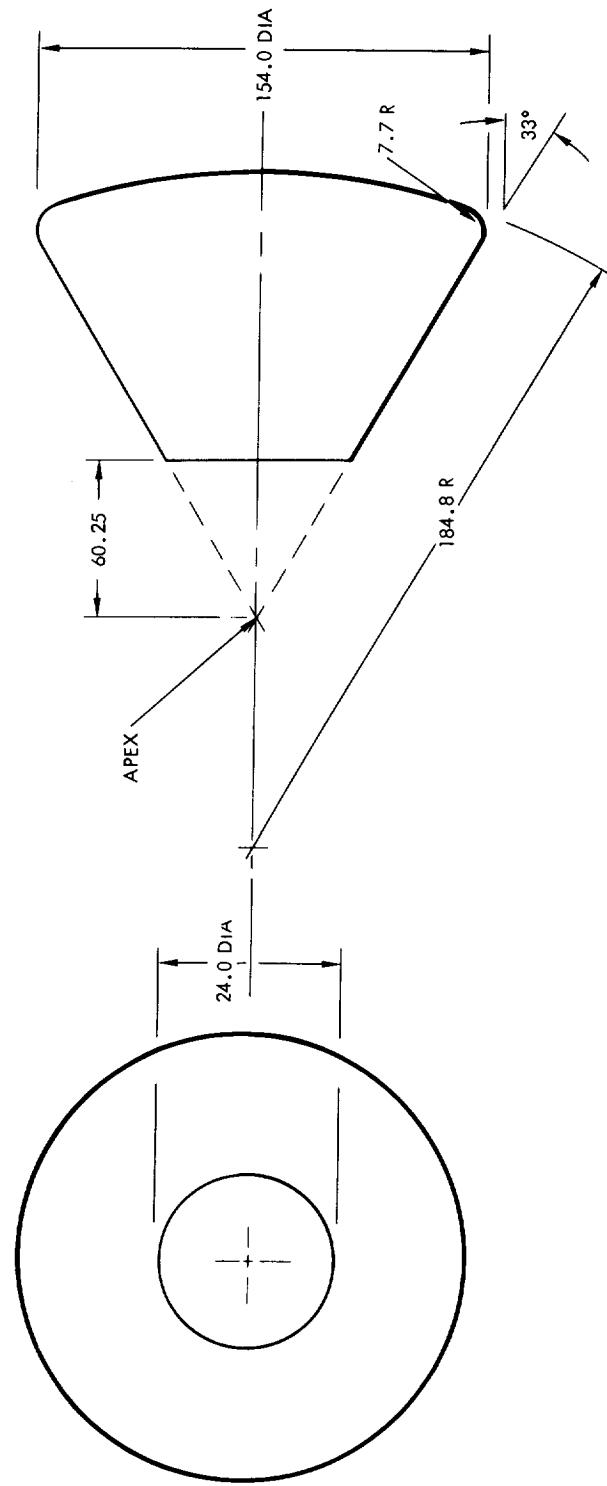
NOTE: (A) & (D) ARE SIMILAR  
(B) & (C) ARE SIMILAR

FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C48



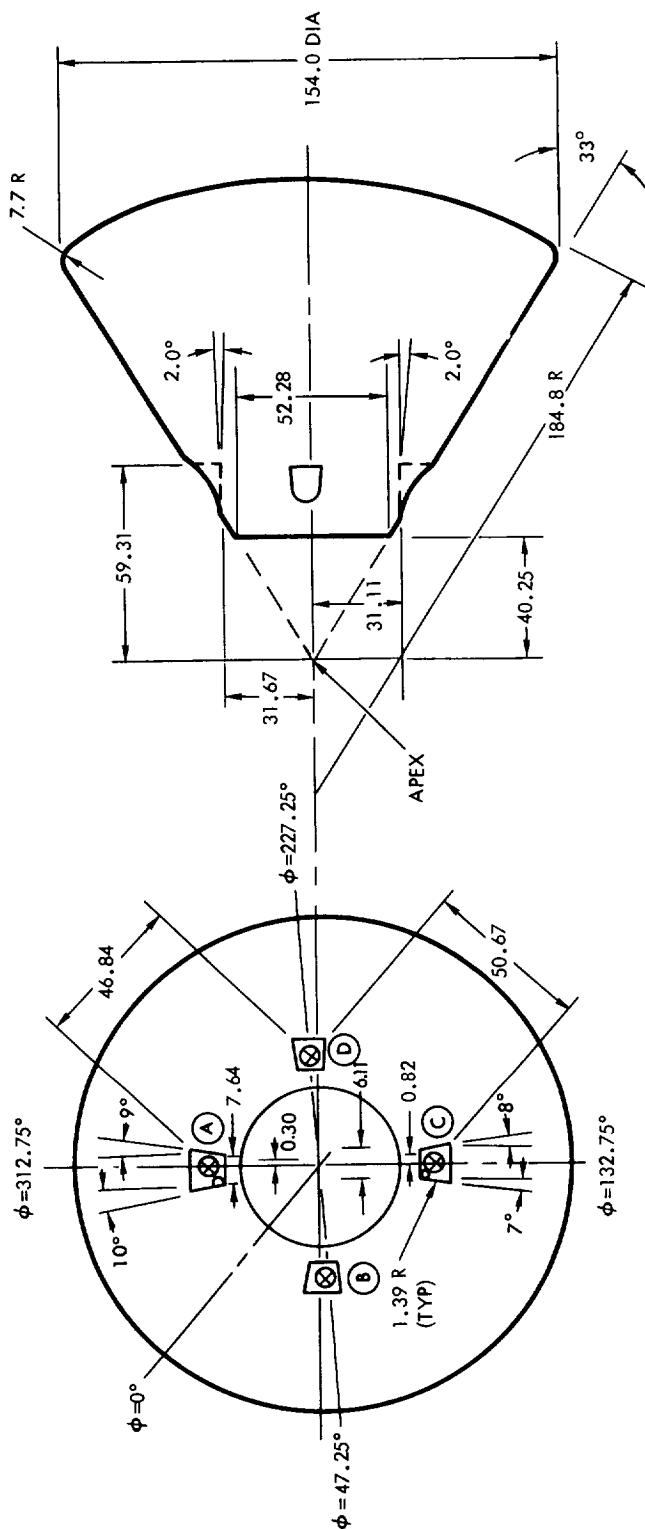




FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C51

DRAWING NOT TO SCALE

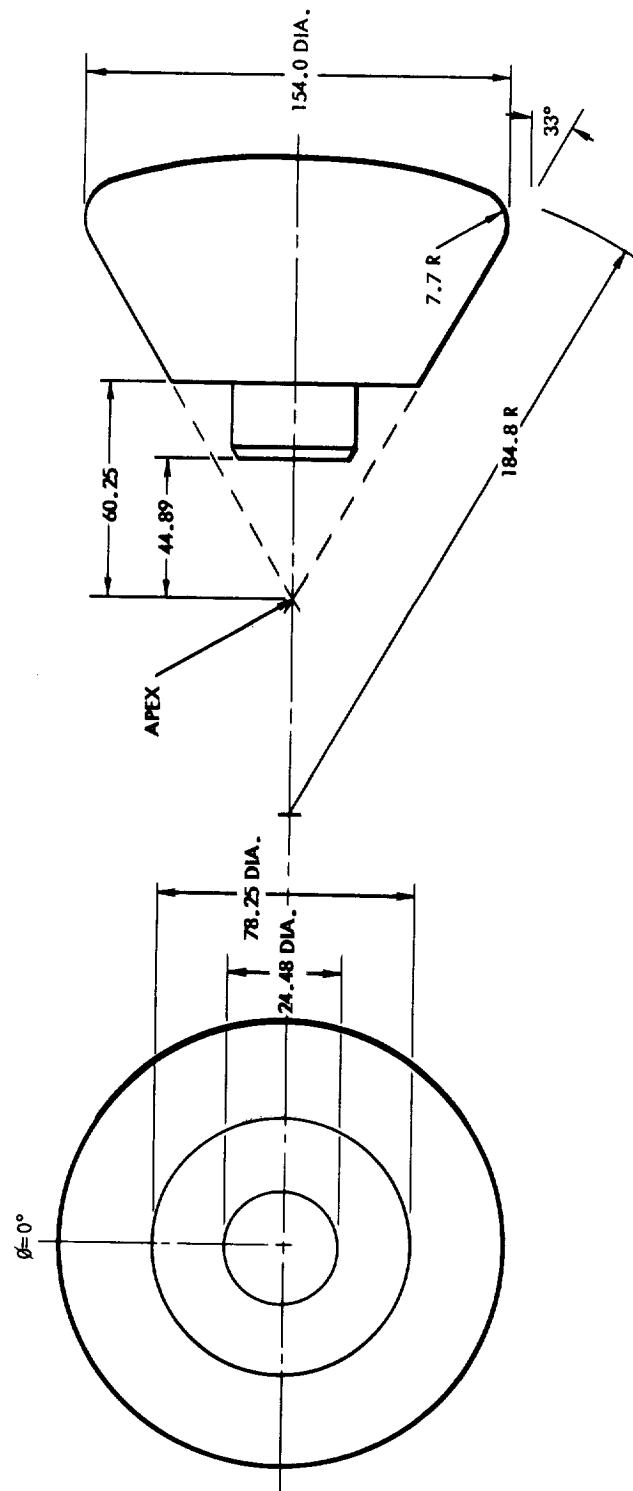


NOTE: (A) & (D) ARE SIMILAR  
(B) & (C) ARE SIMILAR

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

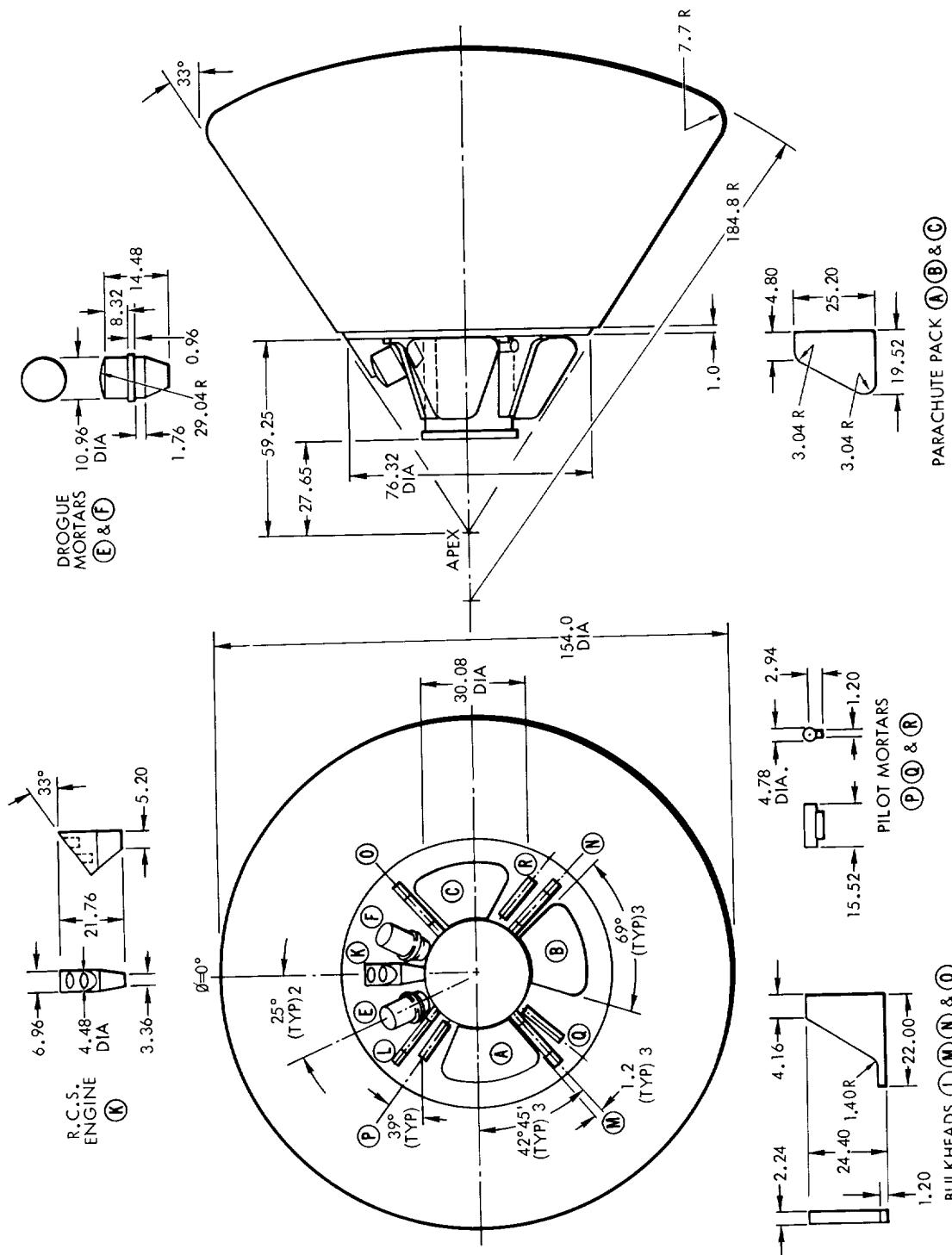
COMMAND MODULE C52



FULL-SCALE DIMENSIONS IN INCHES

COMMAND MODULE C53

DRAWING NOT TO SCALE



COMMAND MODULE C54

## FULL SCALE DIMENSIONS IN INCHES

BULKHEADS L M N & O

ALKALOIDES

DRAWING NOT TO SCALE

SID 63-44





## SUMMARY OF ESCAPE TOWER VARIABLES

T. No.	*Total Exposed Length (in.)	Longitudinal Members		Cross Members		Distance Between Attachment Points *		Distance of Horizontal Members From Escape Rocket Base (in.)	Miscellaneous
		No.	Diameter (in.)	No.	Diameter (in.)	Command Module (in.)	Escape Rocket (in.)		
1	169.0	4	2.85	32	2.05	52.00 by 52.00	12.00 by 12.00	36.00+56.00+41.00+117.00	
2	249.00	4	2.85	48	2.05			36.00+56.00+41.00+117.00	
3	169.00	5	1.15	32	2.30			36.00+56.00+41.00+117.00	
4	249.00	5	1.15	48	2.30	52.00 by 52.00		36.00+56.00+41.00+117.00	
5	164.51	6	1.00	48	2.00	46.50 by 46.50		36.00+41.00+75.00+138.00+117.00+142.00	
6	244.50	6	1.57	64	2.38	46.75 by 46.75		9.0+42.0+75.0+108.0+141.0+174.0+217.0+222.0	
7	113.00	7	2.20	24	2.50	52.00 by 52.00	12.00 by 12.00	36.00+50.00+75.00	
8	86.00	8	2.85	8	2.85	52.00 by 52.00	36.00 by 30.00	50.75	
9	82.75	8	2.85	24	2.38	52.00 by 52.00	36.00 by 30.00	50.75	
10	114.51	9	1.57	32	2.38	46.75 by 46.75	21.00 by 21.00	9.00+39.39+87.05+92.89	Braces near base of legs
11	77.47	9	1.57	24	2.38	46.75 by 46.75	21.00 by 21.00	9.00+52.00+57.84	Braces near base of legs
12	114.00	10	1.20	28	2.50	52.00 by 52.00	12.00 by 12.00	25.00+50.00+75.00+84.75	Braces near base of legs
13	115.14	10	2.84	32	2.29	50.50 by 53.46	12.00 by 12.00	36.00+56.00+81.30+117.00	Stiffener plates at base
14	112.27	11	2.17	56	2.78	46.75 by 46.75	36.04 by 36.04	34.64+60.27+85.89+91.89	Stiffener plates at base
15	114.62	12	1.31	24	2.51	50.50 by 46.84	36.00 by 36.00	64.62+60.24+85.89	Braces near base of legs, plate at top, longitudinal tube
16	115.10	12	1.40	28	2.49	50.18 by 50.18	36.07 by 36.07	64.64+60.26+85.87+91.87	Gussets top and base, plate at top, feet at base
17	114.62	13	1.51	32	2.51	50.50 by 46.84	36.06 by 36.06	64.64+60.26+85.87	Braces near base of legs
18	variable	13	variable	52	variable	50.50 by 46.84	36.06 by 36.06	64.64+60.29+85.87	Stiffener plates at base, variable dimensions
19	114.51	14	2.29	36	2.49 & 3.51	49.41 by 45.65	36.23 by 35.24	64.64+60.26+85.89	Stiffener plates and gussets near base of legs
20	114.50	14	2.10	42	2.67	50.50 by 46.85	36.06 by 36.06	64.64+60.26+85.89	Stiffener plates near base of legs
21	115.10	14	2.40	28	2.40	50.18 by 50.18	36.07 by 36.07	64.64+60.26+85.87+91.87	Gussets located 82.45 in. aft of escape rocket base
22	114.58	15	1.13	32	2.34	50.50 by 46.85	36.06 by 36.06	64.29+60.29+85.81	Same as 115 except top side members thinned to fit with C19 longitudinal and cross members cut longitudinal support
23	114.63	15	1.51	29	2.51	50.50 by 46.85	36.07 by 36.07	60.25+35.48	Ring 12.10 in. aft of rocket base, plate at top, gussets at top and base of legs
24	114.51	16	2.29	37	2.49	49.41 by 45.65	36.23 by 35.24	60.26+35.49	Ring 32.12 in. aft of rocket base, stiffener plates and gussets near base
25	114.51	16	2.29	20	2.49	49.41 by 45.65	36.23 by 35.24	60.26+35.49	Top cross members removed, stiffener plates and gussets near base
26	114.51	17	2.57	37	2.38	46.76 by 46.76	36.07 by 36.07	60.24+35.49	Ring 32.10 in. aft of rocket base, stiffener plates, gussets, and feet near base
27	115.35	17	4.00	28	2.67 & 4.00	50.50 by 46.84		60.24+35.49	Ring 32.11 in. aft of rocket base, plate at top
27	114.61	18	3.51	28	2.51 & 3.51	50.50 by 46.85		60.25+35.48	Ring 32.10 in. aft of rocket base, plate at top
28	115.35	18	4.00	28	2.67 & 4.00	50.50 by 46.84	36.07 by 36.07	60.24+35.49	Ring 32.11 in. aft of rocket base, plate at top
29	115.35	19	3.51	28	2.51 & 3.51	50.50 by 46.84	36.05 by 36.05	60.25+35.47	Ring 32.10 in. aft of rocket base, plate at top
30	114.51	19	2.57	38	2.38	46.76 by 46.76	36.07 by 36.07	60.29+35.49	Ring 32.10 in. aft of rocket base, gussets at top
31	114.51	20	3.57		2.58	46.76 by 46.76		60.29+35.49	Ring 32.13 in. aft of rocket base, gussets at top
32	115.15	20	4.10		2.87 & 4.10	46.76 by 46.76		60.24+35.49	Ring 32.10 in. aft of rocket base, stiffener plates, gussets, and feet near base, trapezoidal plates above ring
33	114.57	21	4.00		2.67 & 4.00	46.84 by 50.67		60.24+35.49	Ring 32.10 in. aft of rocket base, stiffener plates, gussets, and feet near base, trapezoidal plates above ring (side opposite C/G.)
34	114.57	21	4.00		2.67 & 4.00	46.84 by 50.67		60.24+35.49	Ring 32.10 in. aft of rocket base, gussets at top
35	114.57	21	4.00		2.67 & 4.00	46.84 by 50.67		60.24+35.49	Ring 31.35 in. aft of rocket base
36	114.57	21	4.00		2.67 & 4.00	46.84 by 50.67		60.24+35.49	Ring 32.10 in. aft of rocket base
37	114.57	21	4.00		2.67 & 4.00	46.84 by 50.67		60.24+35.49	Ring 31.35 in. aft of rocket base
38	114.57	21	4.00		2.67 & 4.00	46.84 by 50.67		60.24+35.49	Ring 32.10 in. aft of rocket base
39	114.57	21	4.00		2.67 & 4.00	46.84 by 50.67		60.24+35.49	Ring 31.35 in. aft of rocket base
40	113.15	21	4.10		2.67 & 4.10	46.76 by 46.76		60.24+35.49	Ring 32.10 in. aft of rocket base
41	113.15	21	4.00		2.67 & 4.00	46.76 by 46.76		60.24+35.49	Ring 31.35 in. aft of rocket base
42	113.15	21	4.00		2.67 & 4.00	46.76 by 46.76		60.24+35.49	Ring 32.10 in. aft of rocket base
43	113.15	21	4.00		2.67 & 4.00	46.76 by 46.76		60.24+35.49	Ring 31.35 in. aft of rocket base
44	113.15	21	4.00		2.67 & 4.00	46.76 by 46.76		60.24+35.49	Ring 32.10 in. aft of rocket base
45	115.35	21	3.51		2.51 & 3.51	50.50 by 46.84	36.05 by 36.05	60.25+35.47	Ring located 32.13 in. aft of escape rocket base
46	110.28	21	3.44		2.41 & 3.44	39.28 by 39.28	30.30 by 30.30	50.64+72.16	Ring located 26.96 in. aft of escape rocket base
47	115.37	21	4.10	37	2.87 & 4.10	46.84 by 50.66	36.06 by 36.06	60.26+35.49	Ring located 32.13 in. aft of escape rocket base

\*Distance from escape rocket base to command module with command module having a 31-deg nose cone semiangle

\*\*Plates in various positions. See sketches

\*PS-1

\*\*FD-5 only

\*\*\*FS-3 and PS-1



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T	Tower structure-total length = 169.0 in., four longitudinal members. Diameter of longitudinal members = 2.85 in. Diameter of cross braces = 2.05 in. Distance between attachment points at command module = 52.0 in. Distance between attachment points at escape motor = 12.0 in.	M. C. A. G.	FS-1	7121-01051-18	SAL-1201	NA 62-82 SID 62-343
T <sub>2</sub>	Same as T except length = 249.0 in.	M. C. A. G.	FS-1	7121-01051-19	SAL-1201	NA 62-82 SID 62-343
T <sub>3</sub>	Same as T, except diameter of longitudinal members = 3.15 in. Diameter of cross braces = 2.30 in.	M. C.	FS-1	7121-01051-18	JPL 20-495 JPL 21-98	SID 62-246 SID 62-547 SID 62-246 SID 62-423
T <sub>4</sub>	Same as T <sub>2</sub> , except diameter of longitudinal members = 3.15 in. and diameter of cross members = 2.30 in.	D. H. H. S.	PS-1	7121-01151-12	JPL 20-493B JPL 21-100	SID 62-252 Not tested SID 62-252 Not tested



## Apollo Wind Tunnel Model Nomenclature

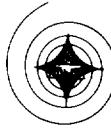
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>4</sub> (Cont)		D. H. H. S.	PS-1	7121-01151-16	JPL 20-493B JPL 21-100	SID 62-252 Not tested SID 62-252 Not tested
T <sub>5</sub>	Length = 164.514 in. Four longitudinal members. Diameter of longitudinal members = 3.0 in. Diameter of cross braces = 2.0 in. Distance between attachment points at command module = 46.752 in. Distance between attachment points at escape motor = 12.0 in. Braces added to attachment end of legs.	J. K.	FS-2	7121-01079-2	Ames 76(11 by 11) 100(9 by 7)	SID 62-100 SID 62-601
T <sub>6</sub>	Length = 244.500 in. Four longitudinal members. Diameter of longitudinal members = 3.571 in. Diameter of cross members = 2.381 in. Distance between attachment points at command module = 46.752 in.; distance between attachment points at escape motor = 12.0 in. Braces added to attachment end of legs as on T <sub>5</sub> .	J. K.	FS-2	7121-01079-6	Ames 100(9 by 7)	SID 62-100 SID 62-601



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T7	Length = 119.00 in. Four longitudinal members. Diameter of longitudinal members = 3.20 in. Diameter of cross members = 2.50 in. Distance between attachment points at command module = 52.00 in. Distance between attachment points at escape motor = 12.0 in.	A. G. M. C.	FS-1	7121-01051-32	SAL-1201 JPL 20- 495 JPL 21- 98	None SID 62-246 SID 62-547 SID 62-246 SID 62-423
		M. C.	FS-1	7121-01051-32	JPL 20- 495 JPL 21- 100	SID 62-246 SID 62-547 SID 62-246 SID 62-423
		D. H.	PS-1	7121-01151-18	JPL 20- 493B JPL 21- 102	SID 62-252 SID 62-486 SID 62-252 SID 62-548
		E. F.	H-1	7121-01251-14	JPL 21- 102	SID 62-354 SID 62-628
T8	Length = 85.0 in.* Four longitudinal members. Diameter of longitudinal members = 2.85 in. Diameter of cross members = 2.85 in. Distance between attachment points at command module = 52.0 in. Distance between attachment points at escape motor = 30.0 in. Stiffener gussets at base of tower. (*Actual length on PS-1 = 82.75 in.)	A. G.	FS-1	7121-01051-27	SAL-1201 JPL 20- 495 JPL 21- 98	None SID 62-343 SID 62-246 SID 62-547 SID 62-246 SID 62-423



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>9</sub>	Length = 114.51 in. Four longitudinal members. Diameter of longitudinal members = 3.57 in. Diameter of cross members = 2.38 in. Distance between attachment points at command module = 46.752 in. Distance between attachment points at escape motor = 21.905 in. Braces added to attachment end of legs.	J. K.	FS-2	7121-01079-11	Ames 106(8 by 7) 100(9 by 7) 76(11 by 11) 81(11 by 11)	SID 62-100 SID 62-601 SID 62-778 SID 62-601 SID 62-627
D. C.		P. L.	FS-2	7121-01079-11	TWT-74 NAAL-485	SID 62-353 SID 62-738 SID 62-1128
		J. K. R. H.	FS-2	7121-01079-11	Ames 112(8 by 7) 108(9 by 7) 85(11 by 11)	SID 62-1007 SID 63-145
T <sub>10</sub>	Length = 79.47 in. Four longitudinal members. Diameter of longitudinal members = 3.571 in. Diameter of cross members = 2.381 in. Distance between attachment points at command module = 46.752 in. Distance between attachment points at escape motor = 21.905 in. Braces added to attachment end of legs.	J. K.	FS-2	7121-01079-10	Ames 76(11 by 11) 100(9 by 7) 106(8 by 7)	SID 62-100 SID 62-601 SID 62-778
		P. L.	FS-2	7121-01079-10	TWT-74	SID 62-353 Not tested



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>11</sub>	Length = 119.00 in. Four longitudinal members. Diameter of longitudinal members = 3.20 in. Diameter of cross members = 2.50 in. Distance between attachment points at command module = 52.00 in. Distance between attachment points at escape motor = 12.00 in. Stiffener plate at base of tower.	R. U.	FS-1	7121-01051-32	SAL-1208	None SID 62-1056
		M. C.	FS-1	7121-01051-32	JPL 20-495	SID 62-246 SID 62-547
		A. G.	FS-1	7121-01051-32	SAL-1204	None SID 62-343
		R. U.	FS-1	7121-01051-32	SAL-1207	None SID 62-1063
		G. D.	FS-1	7121-01051-32	Ames 396(2 by 2)	None SID 62-1027
		M. C.	FS-1	7121-01051-32	SAL-1201	NA 62-82 SID 62-753
T <sub>12</sub>	Length = 175.13 in. Four longitudinal members. Diameter of longitudinal members = 2.84 in. Diameter of cross members = 2.29 in. Distance between attachment points at command module = 53.455 in. Distance between attachment points at escape motor = 12.00 in.	C. B.	FD-2	7121-01058-4	LUPWT-349 LUPWT-374 LTPT 233(8 by 8)	None SID 62-536 None SID 62-1074 None SID 62-1065



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>13</sub>	Length = 112.27 in. Four longitudinal members. Diameter of longitudinal members = 4.17 in. Diameter of cross members = 2.78 in. Distance Between attachment points at command module = 46.75 in. Distance between attachment points at escape motor = 36.04 in. Braces added to attachment end of legs. There is a tube 6.94 in. in diameter running longitudinally from the top of the tower toward the top of the command module.	W. B. D.E.	H-2	7121-01254-20	AEDC Tunnel B 304244- 400	SID 62-614 SID 62-993
					AEDC Tunnel C 304244- 500	SID 62-614 SID 62-993
					AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688
					AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688
					LUPWT- Rey 451	SID 62-1011 SID 63-683
					LUPWT- Rey 451	SID 62-1011 SID 63-683



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T 14	Length = 114.62 in. Four longitudinal members. Diameter of longitudinal members = 3.51 in. Diameter of cross members = 2.51 in. Distance between attachment points at command module = 50.67 in. (planform view) and 46.84 in. (side view). Distance between attachment points at escape motor = 36.06 in. (planform and side views). Stiffener gussets at base and at top of tower. Feet added to base of legs.	J. S.	PS-3	7121-01163-11 and -15	AEDC Tunnel A 304244- 300	SID 62-752 SID 62-1137
T 15	Length = 116.10 in. Four longitudinal members. Diameter of longitudinal members = 3.40 in. Diameter of cross members = 2.49 in. Distance between attachment points at command module = 50.18 in. Distance between attachment points at escape motor = 36.07 in. Braces added to attachment end of legs.	C. B.	FD-2	7121-01061-2	LUPWT- 374	None SID 62-1074



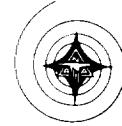
## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>16</sub>	<p>Length = 114.62 in. Four longitudinal members. Diameter of longitudinal members = 3.51 in. Diameter of cross members = 2.51 in. Distance between attachment points at command module = 50.66 in. (planform view) and 46.84 in. (side view). Distance between attachment points at escape motor = 36.06 in. (planform and side views). Stiffener plate added near base of legs.</p>	R. B. D. H.	PSTL -1	7121-01173-16	TWT-77	SID 62-745 SID 62-929 SID 62-1151
T <sub>17</sub>	<p>Length = 114.63 in. Four longitudinal members. Diameter of longitudinal and cross members are variable. * Bosses at longitudinal and cross member joining points. Dimensions of bosses are variable. * Distance between attachment points at command module = 50.66 in. (planform view) and 46.75 in. (side view). Distance between attachment points at escape motor = 36.06 in. (planform and side views). Stiffener plate added near base of legs.</p> <p>*(See sketch for dimensions.)</p>	M. C. E. P.	SD-1	7121-01210-6	LTDT 48(16 by 16)	SID 62-841 SID 63-33



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>18</sub>	Length = 113.31 in. Four longitudinal members. Diameter of longitudinal members = 5.29 in. Diameter of second horizontal member from base and cross members below this horizontal member = 2.49 in. Diameter of cross members above the second horizontal member = 3.51 in. Distance between attachment points at command module = 49.41 in. (planform view) and 45.65 in. (side view). Distance between attachment points at escape motor = 35.23 in. (planform and side view). Stiffener plate added near base of legs. Gusset near base of legs.	A. G.	FSJ-1	7121-01106-6, -9, and -10 7121-01104-7	Langley 191(16 by 16)	SID 62-876 Not tested
T <sub>19</sub>	Length = 114.59 in. Four longitudinal members. Diameter of longitudinal members = 4.00 in. Diameter of cross members = 2.67 in. Distance between attachment points at command module = 50.66 in. (planform view) and 46.75 in. (side view). Distance between attachment points at escape motor = 36.06 in. (planform and side	A. G.	FS-3	7121-01063-14	AEDC - Tunnel A 304244- 300	SID 62-709 SID 62-1057



## Apollo Wind Tunnel Model Nomenclature

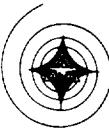
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>19</sub> (Cont)	views). Stiffener plate added near base of legs. Disc around tower legs near tower-module intersection point. Diameter of disc = 6.44 in.; thickness = 0.67 in.					
T <sub>20</sub>	Length = 114.60 in. Four longitudinal members. Diameter of longitudinal members = 4.65 in. Diameter of cross member = 3.15 in. Distance between attachment points at command module = 50.60 in. (planform view) and 46.80 in. (side view). Distance between attachment points at escape motor = 36.10 in. (planform and side view). Gusset added near base of legs.	J. W. B. C.	FSL-1 FSL-1	LH-100-12 7121-01136-12 AEDC 7121-01136-12 AEDC 7121-01136-12 Tunnel A 304244- 300 AEDC Tunnel B 304244- 400 D. C. B. C.	Ames 87(11 by 11) 105(9 by 7) 110(8 by 7) AEDC 304244- 300 AEDC Tunnel B 304244- 400 LH-100-12 7121-01136-12 NACAL- 7121-01136-12 104	SID 62-805 SID 62-1143 SID 62-806 SID 62-806 SID 62-1144 SID 62-806 SID 62-1144 SID 62-670 SID 63-35 SID 62-669 SID 62-1436



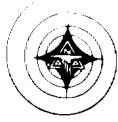
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>21</sub>	<p>Length = 116.10 in. Four longitudinal members. Diameter of longitudinal members = 3.40 in. Diameter of cross members = 2.49 in.</p> <p>Distance between attachment points at command module = 50.18 in.</p> <p>Distance between attachment points at escape motor = 36.07 in. Braces added to attachment end of legs.</p> <p>(Same as T<sub>15</sub> except brace and cross member near attachment end of legs of the top side only have been thinned to allow a fit with command module C<sub>19</sub>.)</p>	C. B. C. M.	FD-2 FD-2	7121-01061-2 7121-01061-2	LUPWT-398 LTPT 258(8 by 8)	None SID 63-96 None SID 63-163
T <sub>22</sub>	<p>Length = 114.58 in. Four longitudinal members. Diameter of longitudinal members = 3.13 in. Diameter of cross members = 2.34 in.</p> <p>Distance between attachment points at command module = 50.66 in. (planform view) and 46.75 in. (side view).</p> <p>Distance between attachment points at escape motor = 36.06 in. (planform and side views). At a distance of 64.07 in. aft of the escape rocket base, the longitudinal</p>	M. C. E. P.	SD-1 -4, and -7	7121-01235-2, 48(16 by 16)	LTDT 48(16 by 16)	SID 62-841 SID 63-33



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>22</sub> (Cont)	and cross members are cut perpendicular to tower centerline; thickness of cut = 0.78 in. There is a support, diameter = 14.75 in., extending through the center of the tower from the escape rocket base to the command module.					
T <sub>23</sub>	Length = 114.63 in. Four longitudinal members. Diameter of longitudinal members = 3.51 in. Diameter of cross members = 2.51 in. Distance between attachment points at command module = 50.66 in. (planform view) and 46.85 in. (side view). Distance between attachment points at escape rocket = 36.07 in. (planform and side views). Stiffener plate added near base of legs. Gussets at top of tower. The diagonals in the first bay aft of the escape rocket base are connected to a ring located almost midcenter of the bay. The ring is perpendicular to the tower centerline. Ring diameter = 23.0 in.; thickness = 2.51 in.	C. B.	FD-3	7121-01075-9	AEDC Tunnel A 304244- 300	SID 62-1299



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
T24	Length = 113.31 in. Four longitudinal members. Diameter of longitudinal members = 5.29 in. Diameter of cross members and ring = 2.49 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located 32.12 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 23.39 in.; thickness = 2.49 in. Distance between attachment points at command module = 49.41 in. (planform view) and 45.65 in. (side view). Distance between attachment points at escape rocket = 35.23 in. (planform and side views). Stiffener plate and gussets added near base of legs.	A. G.	FSJ-1	7121-01106-6, and -13 through -17 7121-01104-7	Langley 191(16 by 16) SID 63-754
T25	Length = 113.31 in. Four longitudinal members. Diameter of longitudinal members = 5.29 in. Diameter of cross members = 2.49 in. Distance between attachment points at command module = 49.41 in. (planform view) and 45.65 in. (side-view). Distance between attachment	A. G.	FSJ-1	7121-01104-7 7121-01106-6	Langley 191(16 by 16) Not tested SID 62-876



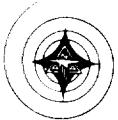
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>25</sub> (Cont)	points at escape rocket = 35.23 in. (planform and side views). Stiffener plate and gussets added near base of legs. All of the cross bracing in the first bay aft of escape rocket base is removed.					
T <sub>26</sub>	Length = 113.14 in. Four longitudinal members. Diameter of longitudinal members = 3.57 in. Diameter of cross members = 2.38 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located 32.10 in. aft of the escape rocket base. The ring is perpendicular to the tower center-line; diameter = 23.00 in.; thickness = 2.38 in. Distance between attachment points at command module = 46.76 in. (planform and side views). Distance between attachment points at escape rocket = 36.07 in. (planform and side views). Stiffener plate, gussets, and feet added near base of legs.	R. H. D.C.	FS-2	7121-01091-2	Ames 001(11 by 11) 001(9 by 7) 001(8 by 7)	SID 63-28 SID 63-448 SID 63-1035



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T 27	Length = 115.35 in. Four longitudinal members. Diameter of longitudinal members and first horizontal members from tower base = 4.00 in. Diameter of remaining cross members = 2.67 in. The diagonals of the first bay aft of the escape rocket base are connected to a ring located 32.13 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 23.0 in.; thickness = 2.67 in. Distance between attachment points at command module = 50.67 in. (planform view) and 46.84 in. (side view). Distance between attachment points at escape rocket = 36.07 in. (planform and side views). Thickness of stiffener plate at top of tower = 2.78 in.	G. U. J. D.	HL-1B **FS-3	7121-01093-3 7121-01268-4	AEDC Tunnel C VT-1244 -C00	S&ID IOL 223-140-63 -023 SID 63-1135
					AEDC Tunnel A VT-1244- A00	SID 62-709 SID 63-902
		J. S.	**PS-3	7121-01169-2	AEDC Tunnel A VT-1244- A00	S&ID IOL 223-140-63 -022 SID 63-650
		C. M.	*FD-5	7121-01121	AEDC Tunnel A VT-1244- A00	SID 63-316 SID 64-1015
		C. B. C. M.			Ames 024 (11 by 11)	SID 63-472
		J. S.	**PS-3	7121-01169-2	LTPT 275 (8 by 8)	SID 63-457



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>27</sub> (Cont)	cross members = 2.51 in.; thickness of ring in the first bay = 2.51 in.; and thickness of stiffener plate at top of tower = 1.69 in.  **FS-3 - Same as T <sub>27</sub> except and gussets at top of tower PS-3 in place of plate.	J. D.	**FS-3	7121-01093-3	AEDC Tunnel A  VT-1244-A00	
T <sub>28</sub>	Length = 115.35 in. Four longitudinal members. Diameter of longitudinal members and first horizontal members from tower base = 4.16 in. Diameter of remaining cross members = 2.78 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located 32.13 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 23.0 in.; thickness = 2.78 in. Distance between attachment points at command module = 50.67 in. (planform view) and 46.84 in. (side view). Distance between attachment points at escape rocket = 36.04 in. (side and planform views).	J. M. J. D.	FSJ-3	7121-01144-9	AEDC Tunnel A  VT-1244-A00	SID 63-352



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>29</sub>	Length = 115.35 in. Four longitudinal members. Diameter of longitudinal members and first horizontal members from tower base = 3.51 in. Diameter of remaining cross members = 2.51 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located 32.13 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 23.0 in.; thickness = 2.51 in. Distance between attachment points at command module = 50.67 in. (planform view) and 46.84 in. (side view). Distance between attachment points at escape rocket = 36.05 in. (side and planform views). Gussets at top of tower.	J.S. P.B.	PSTL- 2	7121-01190-9	None	Not Tested
T <sub>30</sub>	Length = 113.14 in. Four longitudinal members. Diameter of longitudinal members = 3.57 in. Diameter of cross members = 2.38 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located	D.C. C.M.	FS-2	7121-01091-2 and trapezoidal plates	TWT-90	None SID 63-1035 None



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>30</sub> cont.	32.10 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 23.00 in.; thickness = 2.38 in. Distance between attachment points at command module = 46.76 in. (planform and side views). Distance between attachment points at escape rocket = 36.07 in. (planform and side views). Stiffener plates, gussets, and feet added near base of legs. There are four small open areas at the top of the tower each of which is bounded by the ring and two of the upper cross members above the ring. Each of these four open areas is closed by placing a trapezoidal plate on both sides of the cross members.					
T <sub>31</sub>	Length = 113.14 in. Four longitudinal members. Diameter of longitudinal members = 3.57 in. Diameter of cross members = 2.38 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located 32.10 in. aft of the escape rocket base.	D. C. C.M.	FS-2	7121-01091-2 and trapezoidal plates	TWT-90	None SID 63-1035



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
					Pretest and Data Reports
T <sub>31</sub> cont.	The ring is perpendicular to the tower centerline; diameter = 23.00 in.; thickness = 2.38 in. Distance between attachment points at command module = 46.76 in. (planform and side views). Distance between attachment points at escape rocket = 36.07 in. (planform and side views). Stiffener plates, gussets, and feet added near base of legs. There are four small open areas at the top of the tower each of which is bounded by the ring and two of the upper cross members above the ring. Each of the two open areas above the tower centerline is closed by placing a trapezoidal plate on both sides of the cross members.				
T <sub>32</sub>	Length = 113.15 in. Four longitudinal members. Diameter of longitudinal members and first horizontal member from tower base = 4.10 in. Diameter of remaining cross members = 2.87 in. The diagonals in the first bay aft of the escape rocket base are	C. M. D.C.	FS-2	7121-01048-3	TWT-92  None  SID IOL 696-710- 140-64-003



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T32 cont.	connected to a ring located 32.10 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 21.57 in.; thickness = 2.87 in. Distance between attachment points at command module = 46.76 in. (planform and side views). Distance between attachment points at escape rocket = 36.07 in. (planform and side views). Gusssets at top of tower.					
T33	Length = 114.57 in. Four longitudinal members. Diameter of longitudinal members and first horizontal members from tower base = 4.00 in. Diameter of remaining cross members = 2.67 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located 31.35 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 23.0 in.; thickness = 2.67 in. (planform view) and 46.84 in. (side view).	J.D.	FS-3	None	AEDC Tunnel A VT-1244-A00	None



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>33</sub> cont.	Distance between attachment points at escape rocket = 36.07 in. (plan-form and side views). There are four small open areas at the top of the tower each of which is bounded by the ring and two of the upper cross members above the ring. The two areas on the side opposite to the command module center of gravity are closed.				AEDC Tunnel A VT-1244-A00	
T <sub>34</sub>	Same as T <sub>33</sub> except all four of the small open areas above the ring are closed.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T <sub>35</sub>	Same as T <sub>33</sub> except there is a concave conical plate between the two small areas.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>36</sub>	Same as T <sub>33</sub> except there is a concave conical plate between the two small areas and two of the similar small areas located below the ring and on the same side of the tower as the command module center of gravity are closed.	J. D	FS-3	None	AEDC Tunnel A VT-1244-A00	None
T <sub>37</sub>	Same as T <sub>33</sub> except there is a concave conical plate between the two small areas, two of the similar small areas located below the ring and on the same side of the tower as the command module center of gravity are closed, and the area bounded by the ring is closed. The flat plate closing the ring area lies in a plane perpendicular to the vertical plane of symmetry and at a 78.0 deg incidence angle to the yaw plane.	J. D	FS-3	None	AEDC Tunnel A VT-1244-A00	None
T <sub>38</sub>	Same as T <sub>33</sub> except there is a concave conical plate between the two small areas and the area bounded by the ring is closed. The flat plate closing the ring area lies	J. D	FS-3	None	AEDC Tunnel A VT-1244-A00	None



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>38</sub> cont.	in a plane perpendicular to the vertical plane of symmetry and at a 78.0 deg incidence angle to the yaw plane.					
T <sub>39</sub>	Same as T <sub>33</sub> except the four small areas are open. There is an hour glass shaped flat plate lying in a plane perpendicular to the vertical plane of symmetry and passing through the two innermost diagonals located between the ring and escape rocket base (diagonals are on the opposite side of the tower than the command module center of gravity). This flat plate also passes through the two innermost diagonals located between the ring and the second brace from the tower base (diagonals are on the same side of the tower as the command module center of gravity).	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	None SID IOL 696-710-140 -64-003
T <sub>40</sub>	Same as T <sub>32</sub> except there are two plates located at the top of the tower forming a cross. Depth of plates = 15.00 in. Radial locations of plates at top of tower = 45, 135, 225, and 315 deg.	C. M. D. C.	FS-2	7121-01041	TWT-92	None



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>41</sub>	Same as T <sub>32</sub> except there is a flat plate located at top of tower and on the same side as the command module center of gravity. Width = 36.20 in., depth = 29.50 in., and distance from tower centerline = 8.535 in.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T <sub>42</sub>	Same as T <sub>32</sub> except there are two plates located at top of tower forming a cross. Depth of plates = 29.50 in. Radial location of plates = 45, 135, 225, and 315 deg.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T <sub>43</sub>	Same as T <sub>32</sub> except there is a flat plate located at top of tower and on the opposite side as the command module center of gravity. Width = 36.20 in., depth = 29.50 in., and distance from tower centerline = 8.535 in.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T <sub>44</sub>	Same as T <sub>32</sub> except there are three plates located at top of tower and on the opposite side as the command module center of gravity.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T 45	Same as T 32 except there is a flat plate located at top of tower and on the opposite side as the command module center of gravity. Maximum width = 36.20 in., depth = 29.50 in., and distance of top of plate from tower centerline = 13.655 in. Plate is 10 deg incident to yaw plane.	C.M. D.C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T 46	Same as T 32 except there is a flat plate located at top of tower and on the same side as the command module center of gravity. Width = 36.20 in., depth = 29.50 in., and distance of top of plate from tower centerline = 13.655 in. Plate is -10 deg incident to yaw plane.	C.M. D.C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T 47	Same as T 32 except there is a flat plate located at top of tower and on the same side as the command module center of gravity. Width = 36.20 in., depth = 29.50 in., and distance of top of plate from tower centerline = 3.775 in. Plate is 10 deg incident to yaw plane.	C.M. D.C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>48</sub>	Same as T <sub>32</sub> except there are two flat plates at top of tower and attached to the two longitudinal members located on the same side of tower centerline as the command module center of gravity. Both plates lie in the same plane. Width = 12.00 in. and depth = 24.00 in.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T <sub>49</sub>	Same as T <sub>32</sub> except there are two flat plates and one concave conical plate located at top of tower. The two flat plates are attached to the two longitudinal members located on the same side of tower centerline as the command module center of gravity. Both plates lie in the same plane. Width = 12.00 in. and depth = 24.00 in. The third plate lies between the two remaining longitudinal members.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T <sub>50</sub>	Same as T <sub>32</sub> except there are two flat rectangular plates and two small flat triangular plates located at top of tower and on the same side as the command module center of	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>50</sub> cont.	gravity. The rectangular plates are the same as for T48. The triangular plate extends from ring to junction of diagonal and longitudinal member.					
T <sub>51</sub>	Same as T <sub>32</sub> except there are two flat rectangular plates and two flat triangular plates located at top of tower and on same side as the command module center of gravity. The rectangular plates are the same as for T <sub>48</sub> and the triangular plates are the same as for T <sub>50</sub> . In addition, there are three more plates located the same as for T <sub>44</sub> .	C. M. D.C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T <sub>52</sub>	Same as T <sub>32</sub> except there are two small triangular plates located on the same side as the command module center of gravity and two flat triangular plates and an included concave plate located on the opposite side as the command module center of gravity. These five plates are at the top of the tower.	C. M. D.C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003



Apollo Wind Tunnel Model Nomenclature

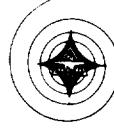
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>53</sub>	Same as T <sub>32</sub> except there is a trapezoidal plate located at top of tower. Plate is 32 deg incident to yaw plane.	C. M. D. C.	FS-2	7121-01041	TWT-92	None SID IOL 696-710-140 -64-003
T <sub>54</sub>	Same as T <sub>32</sub> except there is a trapezoidal plate located at top of tower. Plate is 57 deg incident to yaw plane.	C. M. D. C.	FS-2	None	TWT-92	None SID IOL 696-710-140 -64-003
T <sub>55</sub>	Same as T <sub>32</sub> except there is a plate located in the third bay aft of the escape rocket base. Plate is 40 deg incident to yaw plane. Base of plate is located on the first horizontal member from tower base and on the same side as the command module center of gravity.	C. M. D. C.	FS-2	7121-01041	TWT-92	None SID IOL 696-710-140 -64-003
T <sub>56</sub>	Same as T <sub>32</sub> except there is a flat plate located between the second and third bays aft of the escape rocket base. Plate is 40 deg incident to yaw plane. Top of plate is located on the opposite side of tower than the command module center of gravity.	C. M. D. C.	FS-2	7121-01041	TWT-92	None SID IOL 696-710-140 -64-003



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T57	Same as T32 except there are two large triangular plates located at top of tower and on the same side as the command module center of gravity and two flat triangular plates and an included concave conical plate located on the opposite side as the command module center of gravity.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T58	Same as T32 except there are two plates located aft of the ring and on the same side as the command module center of gravity and a trapezoidal plate located at top of tower. The trapezoidal plate is 32 deg incident to yaw plane.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T59	Same as T32 except there is a trapezoidal plate located at top of tower and 32 deg incident to yaw plane.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003
T60	Same as T32 except there is a trapezoidal plate with cutout located at top of tower. Plate is 32 deg incident to yaw plane.	C. M. D. C.	FS-2	7121-01041	TWT-92	None  SID IOL 696-710-140 -64-003



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>61</sub>	Same as T <sub>60</sub> except a section of each side of the plate is removed.	C.M. D.C.	FS-2	7121-01041	TWT-92	None SID IOL 696-710-140 -64-003
T <sub>62</sub>	Length = 114.57 in. Four longitudinal members. Diameter of longitudinal members and first horizontal members from tower base = 4.00 in. Diameter of remaining cross members = 2.67 in. The diagonals of the first bay aft of the escape rocket base are connected to a ring located 31.35 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 23.0 in.; thickness = 2.67 in. Distance between attachment points at command module = 50.67 in. (planform view) and 46.84 in. (side view). Distance between attachment points at escape rocket = 36.07 in. (planform and side views). A trapezoidal plate is attached to cross members located forward of the ring and on the side opposite the command module center of gravity. The height of this plate = 33.20 in.	J.D.	FS-3	None	AEDC Tunnel A VT-1244-A00 AEDC Tunnel C VT-1244-C00	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T63	Same as T62 except plate is changed by having a cut out at top, fence on each side, and a wedge added to the surface of the plate below the cut out.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T64	Same as T62 except height of trapezoidal plate = 33.24 in. and has a cut out. A concave conical plate has been added forward of the ring and on the same side as the command module center of gravity.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T65	Same as T62 except height of trapezoidal plate = 33.24 in. and has a cut out with depth = 15.02 in. and width = 24.44 in.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
		G. U. H. T.	FD-6	7121-01317	Ames 43(12 by 12)	SID 63-1366



Apollo Wind Tunnel Model Nomenclature



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T67	Same as T62 except plate is no longer trapezoidal; height = 38.80 in. and maximum width = 36.49 in.	J. D.	FS-3	None	AEDC Tunnel A	
T68	Same as T62 except plate is no longer trapezoidal; height = 33.24 in., base width = 28.31 in.; cut out at top with depth = 5.91 in. and width 24.44 in. Plate also extends thru the ring.	J. D.	FS-3	None	AEDC Tunnel A	VT-1244-A00
T69	Same as T62 except a concave conical plate has been added forward of the ring and on the same side as the command module center of gravity.	J. D.	FS-3	None	AEDC Tunnel A	VT-1244-A00
T70	Same as T62 except a concave conical plate has been added forward of the ring and on the same side as the command module center of gravity. A curved plate has also been added aft of the ring and on the same side as the command module center of gravity.	J. D.	FS-3	None	AEDC Tunnel A	VT-1244-A00

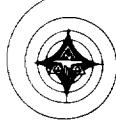


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>71</sub>	Same as T <sub>62</sub> except a concave conical plate has been added forward of the ring and on the same side as the command module center of gravity.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T <sub>72</sub>	Same as T <sub>62</sub> except height of trapezoidal plate = 32.78 in. and has a cut out with depth = 15.02 in. and width = 24.44 in. Plate is 40 deg 42 min incident to yaw plane.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T <sub>73</sub>	Same as T <sub>62</sub> except trapezoidal plate has a cut out with depth = 15.02 in. and width = 24.44 in. Plate is 20 deg 42 min incident to yaw plane.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T <sub>74</sub>	Same as T <sub>62</sub> except height of trapezoidal plate = 32.78 in. Plate has a cut out with depth = 15.02 in. and width = 24.44 in. There is also a concave conical plate located on the inner surface of the trapezoidal plate. There is a second concave conical plate located forward of the ring and on the same side as the command module center of gravity.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T75	Same as T62 except plate is no longer trapezoidal but hexagonal in shape with cut out at forward end of plate. Cut out depth = 15.02 in. and width = 24.44 in. Height of plate = 33.24 in. and width = 48.46 in.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T76	Same as T75 except there is a concave conical plate located forward of the ring and on the same side as the command module center of gravity.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T77	Same as T62 except plate is no longer trapezoidal. Height of plate = 33.24 in.; depth and width of cut out at forward end = 15.02 in. and 24.44 in. respectively. There are two triangular plates forward of the ring and on the same side as the command module center of gravity. There are also two rectangular plates attached to the two longitudinal members on the side opposite the command module center of gravity; these two plates are angled outward 45 deg to yaw plane.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T78	Same as T62 except plate is no longer trapezoidal and is now located at the base of the tower and on the same side the command module center of gravity. There is a cut out at the aft end of the plate which follows the command module mold line.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T79	Same as T62 except trapezoidal plate has a cut out with depth = 15.02 in. and width = 24.44 in. Plate is attached to the forward end of the two longitudinal members on the side opposite the command module center of gravity, angled outward, and extends forward.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T80	Same as T62 except plate is no longer trapezoidal but hexagonal and has an elliptical cut out. Distance of cut out from top of plate = 18.22 in. Height of plate = 57.91 in. and maximum width = 36.49 in. Plate extends beyond the top of the tower.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T81	Same as T62 except height of trapezoidal plate = 18.67 in., there is a cut out, and a fence is added to each side of the inner surface. A concave conical plate located forward of the ring and on the same side as the command module center of gravity. A curved plate has also been added forward of the ring and on the side opposite the command module center of gravity. There are two plates attached at the forward end of each of the two longitudinal members located on the side opposite the command module center of gravity.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	
T82	Same as T77 except two additional rectangular plates are attached to the remaining two longitudinal members. These plates also are angled outward 45 deg to yaw plane.	J. D.	FS-3	None	AEDC Tunnel A VT-1244-A00	



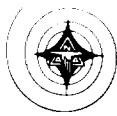
## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>83</sub>	Same as T <sub>32</sub> except there is a trapezoidal plate attached to cross members located forward of the ring and on the side opposite the command module center of gravity. Height of plate = 34.29 in.; maximum width = 40.95 in.; minimum width = 27.62 in. Plate also has a cut out: width = 19.42 in. Plate is 32 deg 58.44 min incident to yaw plane.	B. C.	FS-2 and -3	7121-01048-2	Ames 066(8 by 7) 066(9 by 7) 066(11 by 11)	None
T <sub>84</sub>	Same as T <sub>27</sub> except there is a trapezoidal plate located forward of the ring and on the side opposite the command module center of gravity. Plate has a maximum width of 41.29 in. and minimum width = 30.0 in. The plate also has a cut out with depth = 7.8 in. and width = 20.40 in.	D. E.	HL-1C	7121-01268-4		
T <sub>85</sub>	Same as T <sub>27</sub> except there is a trapezoidal plate, with a cutout, located forward of the ring and on the side opposite the command module center of gravity. Dimensions of plate are: height = 34.09 in.,	J. S. P. B.	PSTL -2		Ames SID 63-1027	SID 63-1027



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T 85 (Cont)	maximum width = 41.09 in., minimum width = 23.55 in.; depth of cutout = 13.67 in. and width = 22.47 in.					
T 86	Length = 110.28 in. Four longitudinal members. Diameter of longitudinal members and first horizontal members from tower base = 3.44 in. Diameter of remaining cross members = 2.41 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located 26.96 in. aft of escape rocket base. The ring is perpendicular to the tower centerline; diameter = 18.12 in.; thickness = 2.41 in. Distance between attachment points at command module = 39.28 in. (planform and side views). Distance between attachment points at escape rocket = 30.30 in. (planform and side views). There is a trapezoidal plate, with a cutout, located forward of the ring and on the side opposite the command module center of gravity.	B. C.	F S-10A	7121-01048-2 and -3 (Modified)	TWT-101	

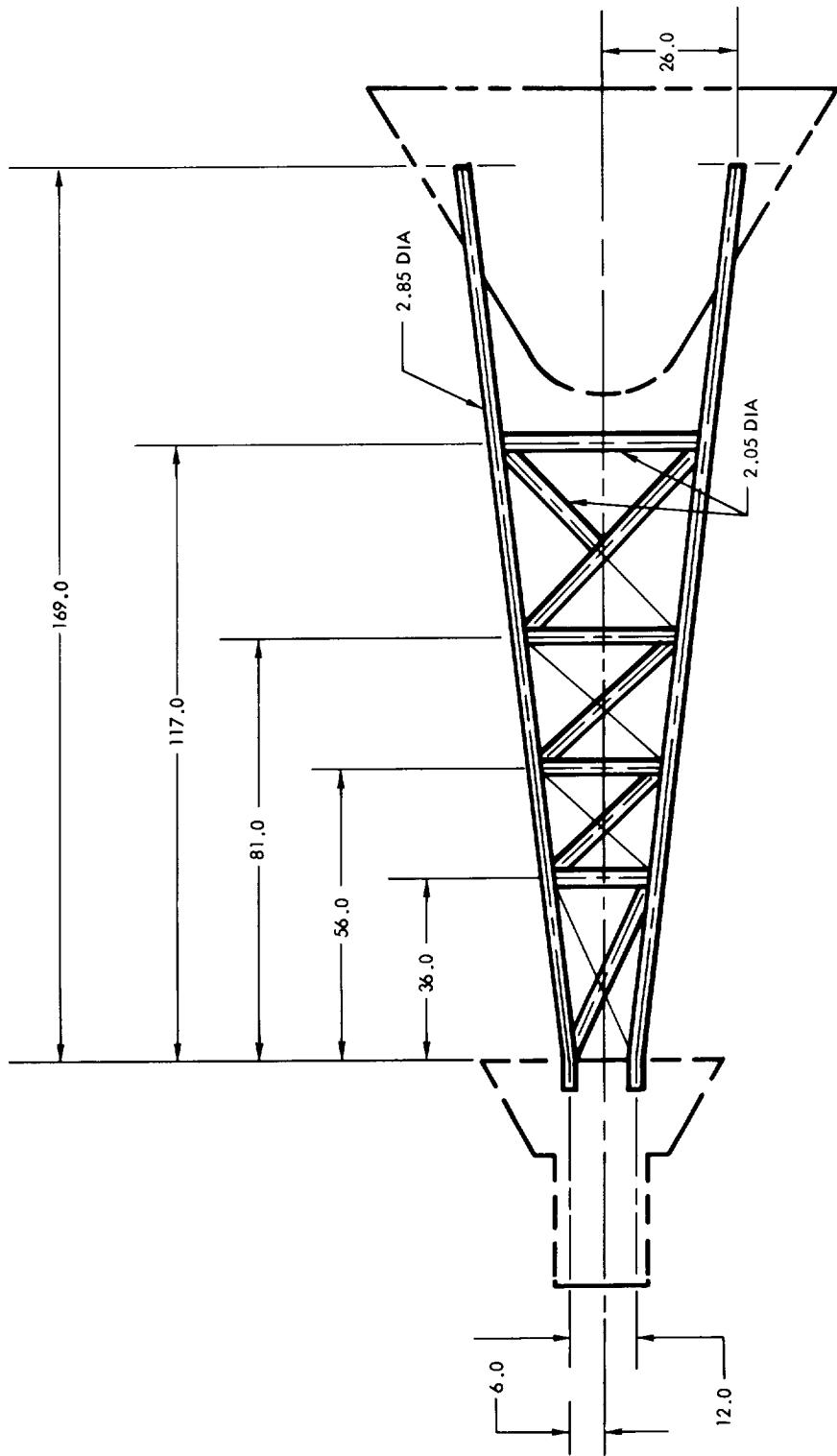


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
T <sub>86</sub> (Cont)	Dimensions of plate: height = 28.80 in., maximum width = 34.40 in., minimum width = 23.20 in., and width of cutout = 16.31 in.					
T <sub>87</sub>	Length = 115.37 in. Four longitudinal members. Diameter of longitudinal members and first horizontal member from tower base = 4.10 in. Diameter of remaining cross members = 2.87 in. The diagonals in the first bay aft of the escape rocket base are connected to a ring located 32.13 in. aft of the escape rocket base. The ring is perpendicular to the tower centerline; diameter = 23.0 in.; thickness = 2.87 in. Distance between attachment points at command module = 50.66 in. (planform view) and 46.84 in. (side view). Distance between attachment points at escape rocket = 36.06 in. (planform and side views). There is a trapezoidal plate located forward of the ring and on the side opposite the command module center of gravity. Dimensions of plate are	J.S. P.B.	FS-10 7121-01276-2 7121-01277-2	TWT-103		



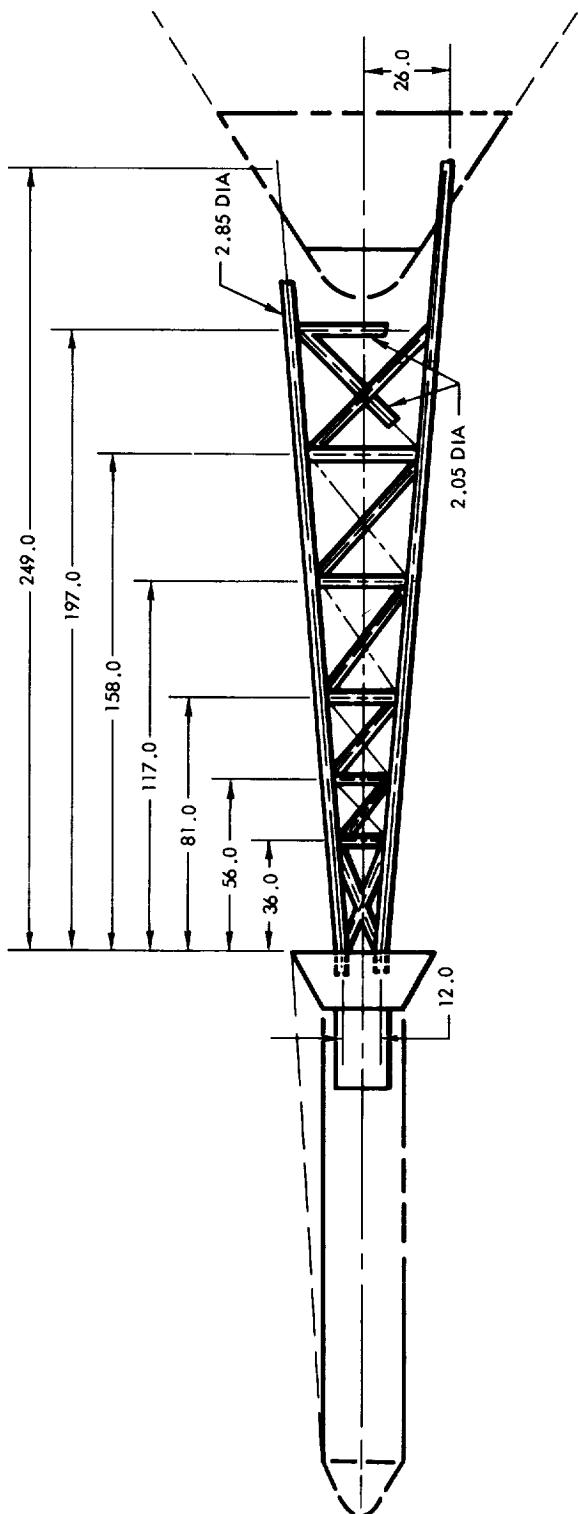
Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
T 87 (Cont)	as follows: height = 32.60 in., maximum width = 41.28 in., and minimum width = 30.01 in. Plate also has a cutout with width 20.40 in. and depth = 7.80 in.				



FULL-SCALE DIMENSIONS IN INCHES

## ESCAPE TOWER STRUCTURE (1)

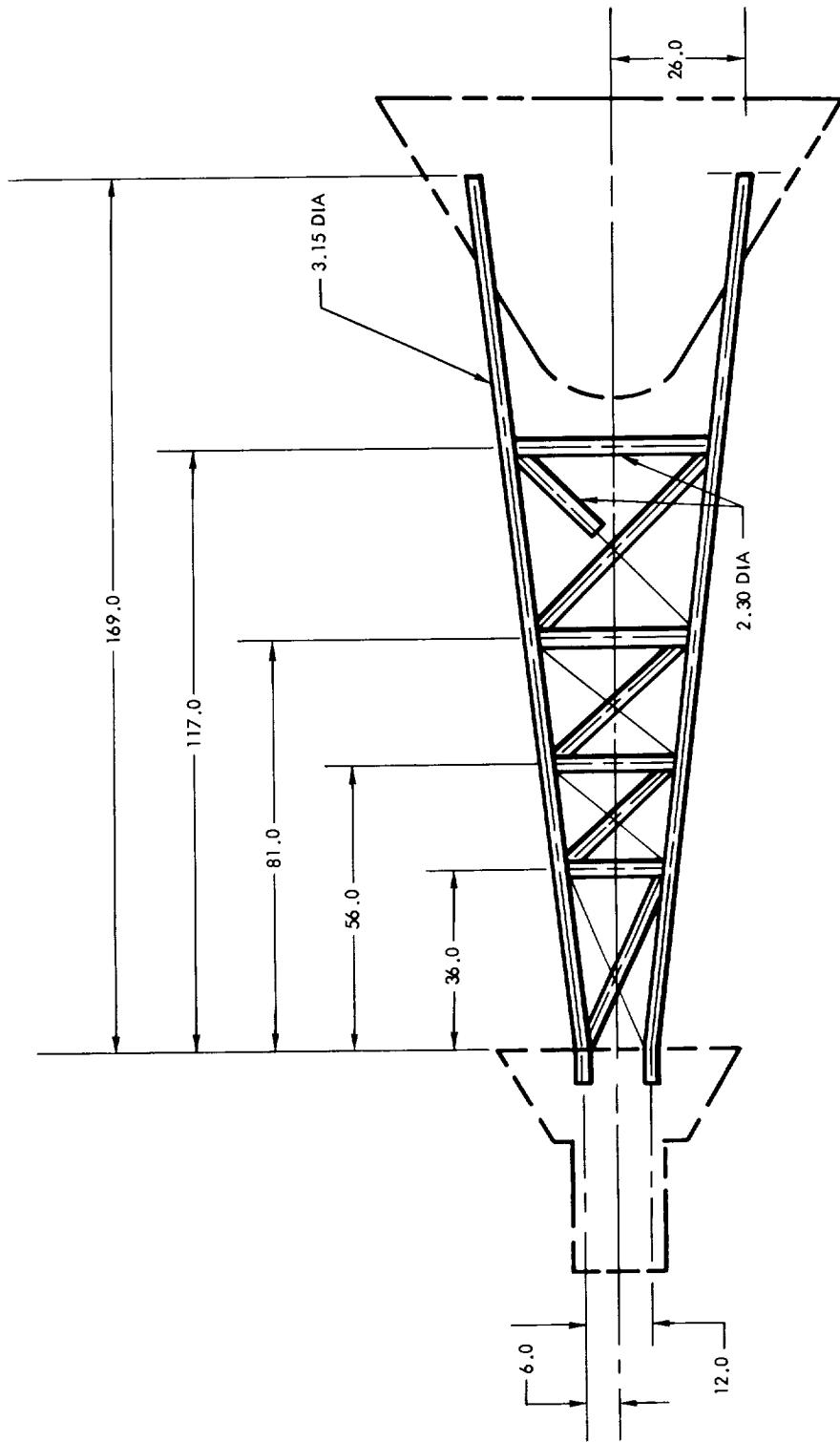
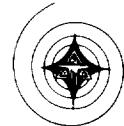
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

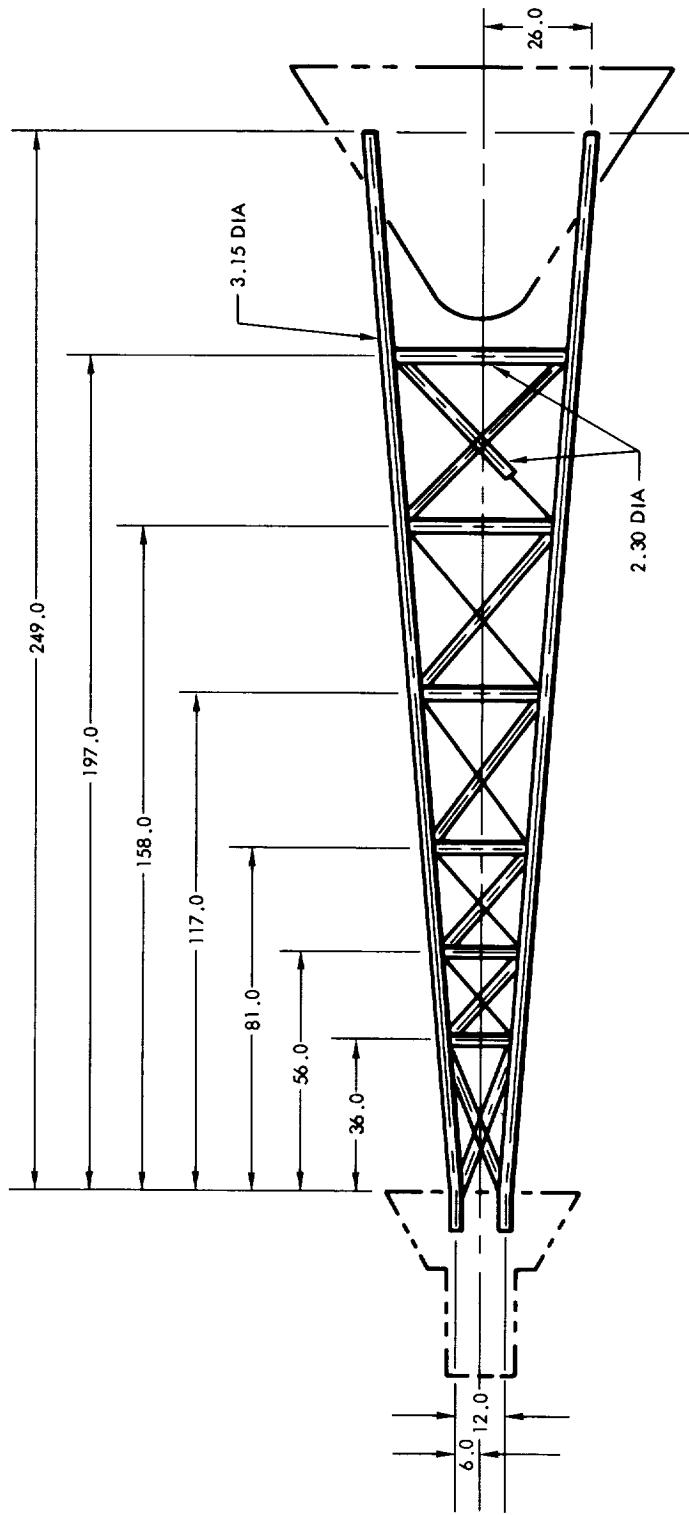
ESCAPE TOWER STRUCTURE T<sub>2</sub>

FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T<sub>3</sub>

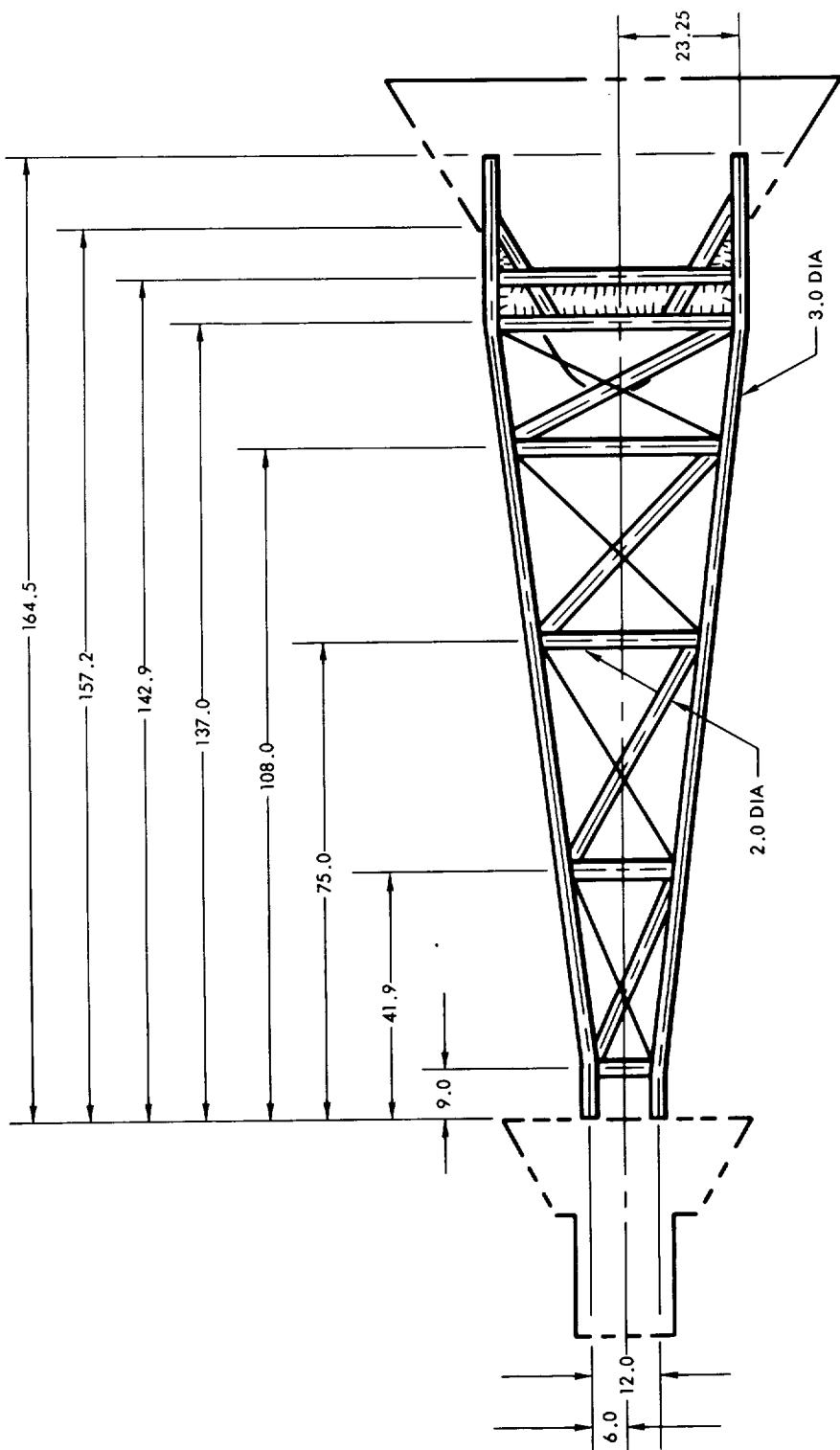
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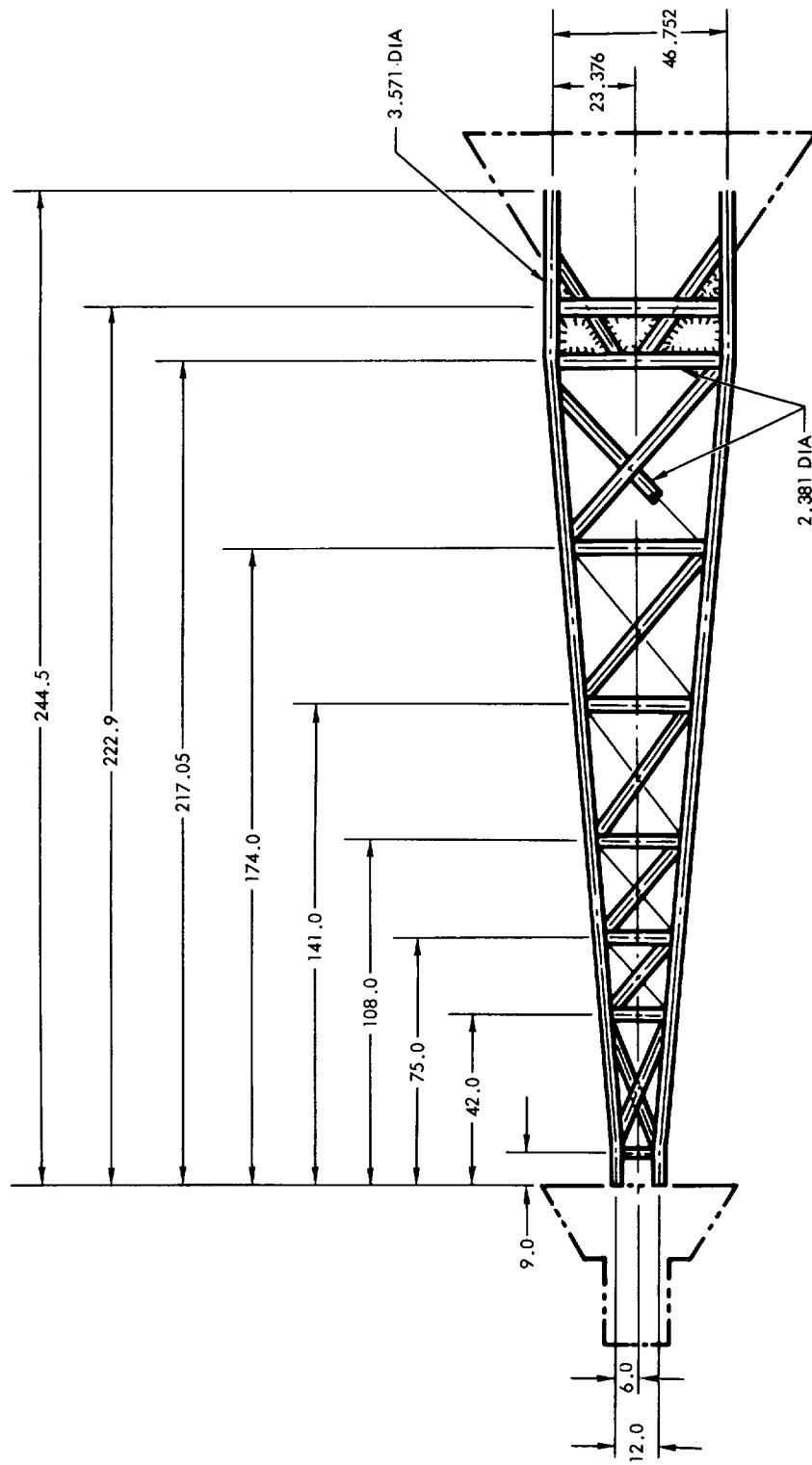
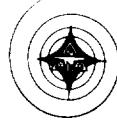
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ESCAPE TOWER STRUCTURE T<sub>4</sub>

FULL-SCALE DIMENSIONS IN INCHES

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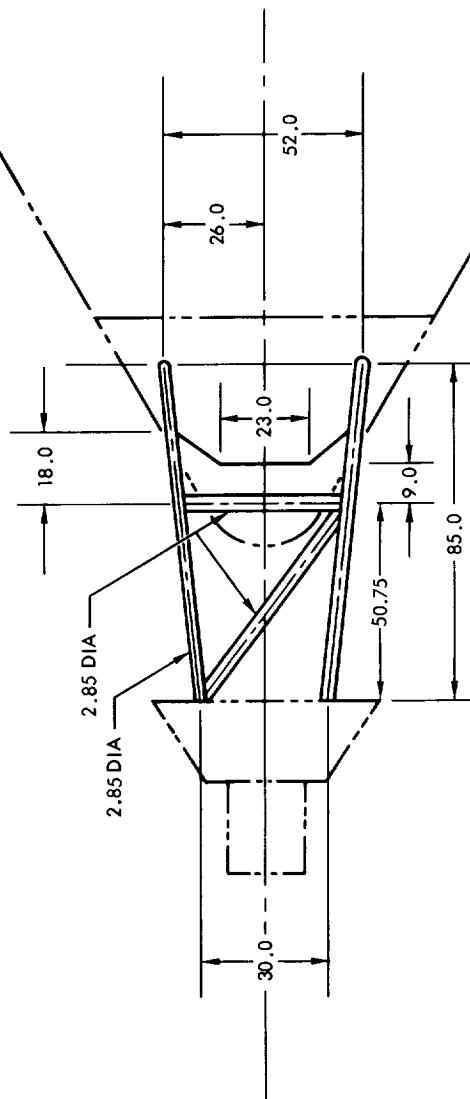
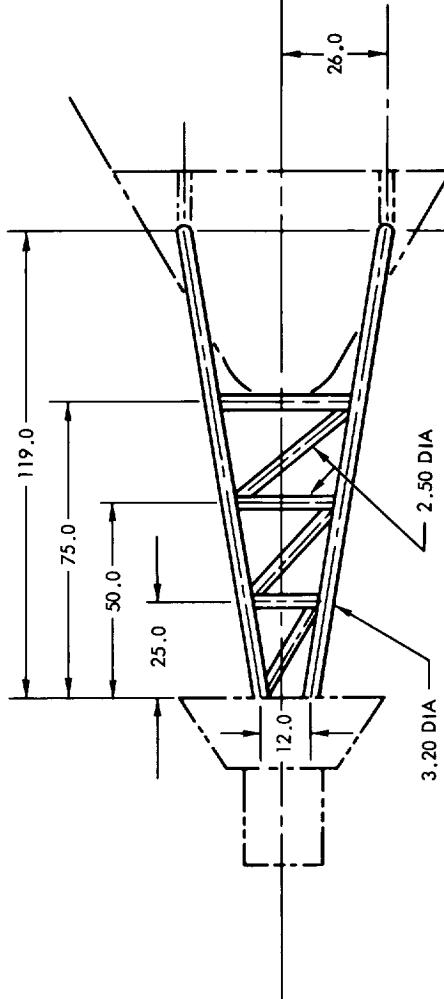
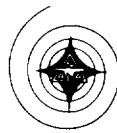




ESCAPE TOWER STRUCTURE 6

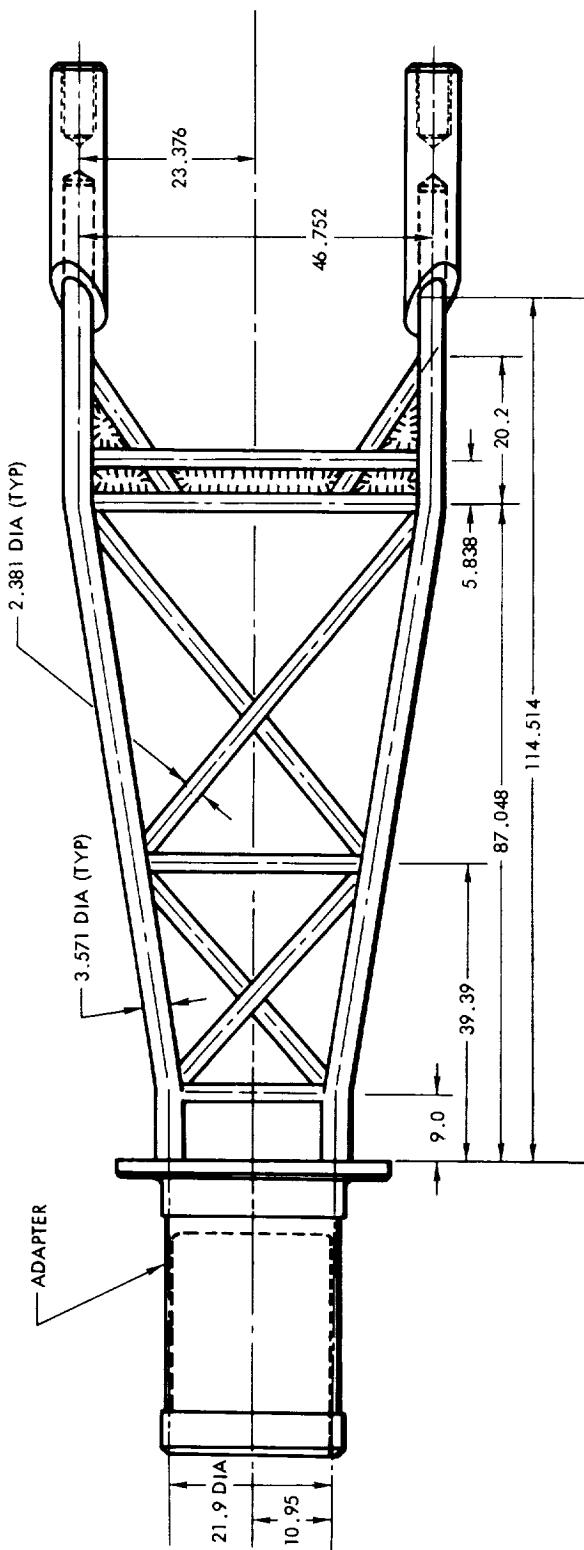
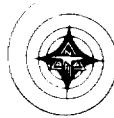
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



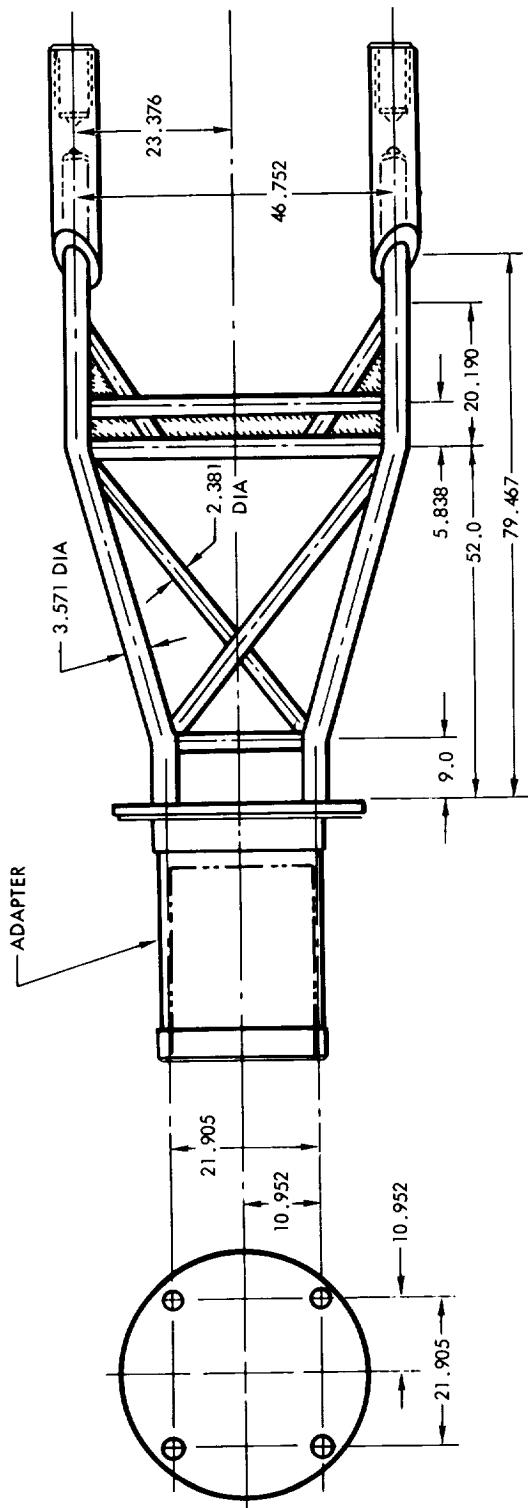
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T<sub>9</sub>

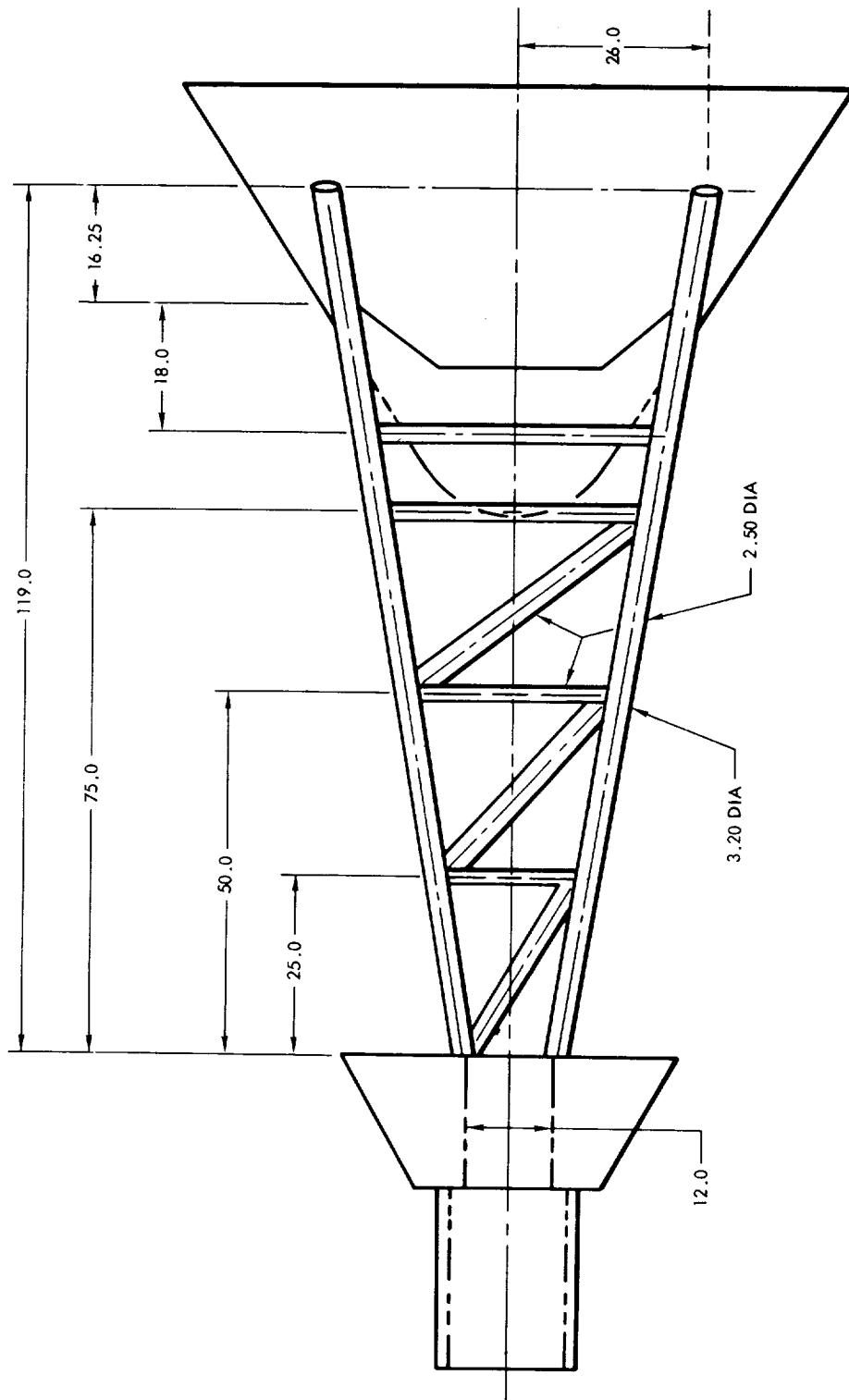
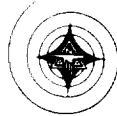
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T<sub>10</sub>

FULL-SCALE DIMENSIONS IN INCHES

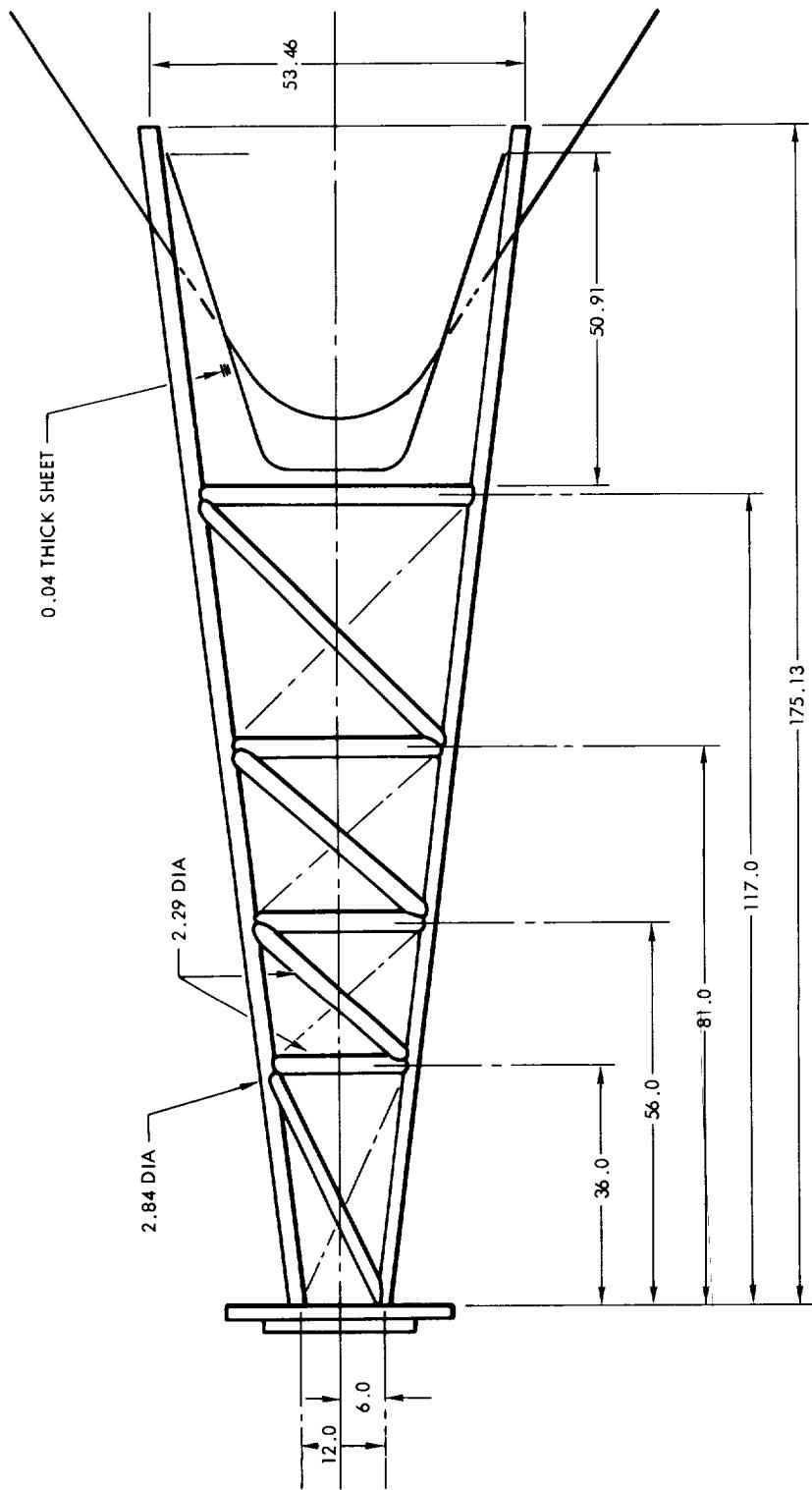
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T<sub>11</sub>

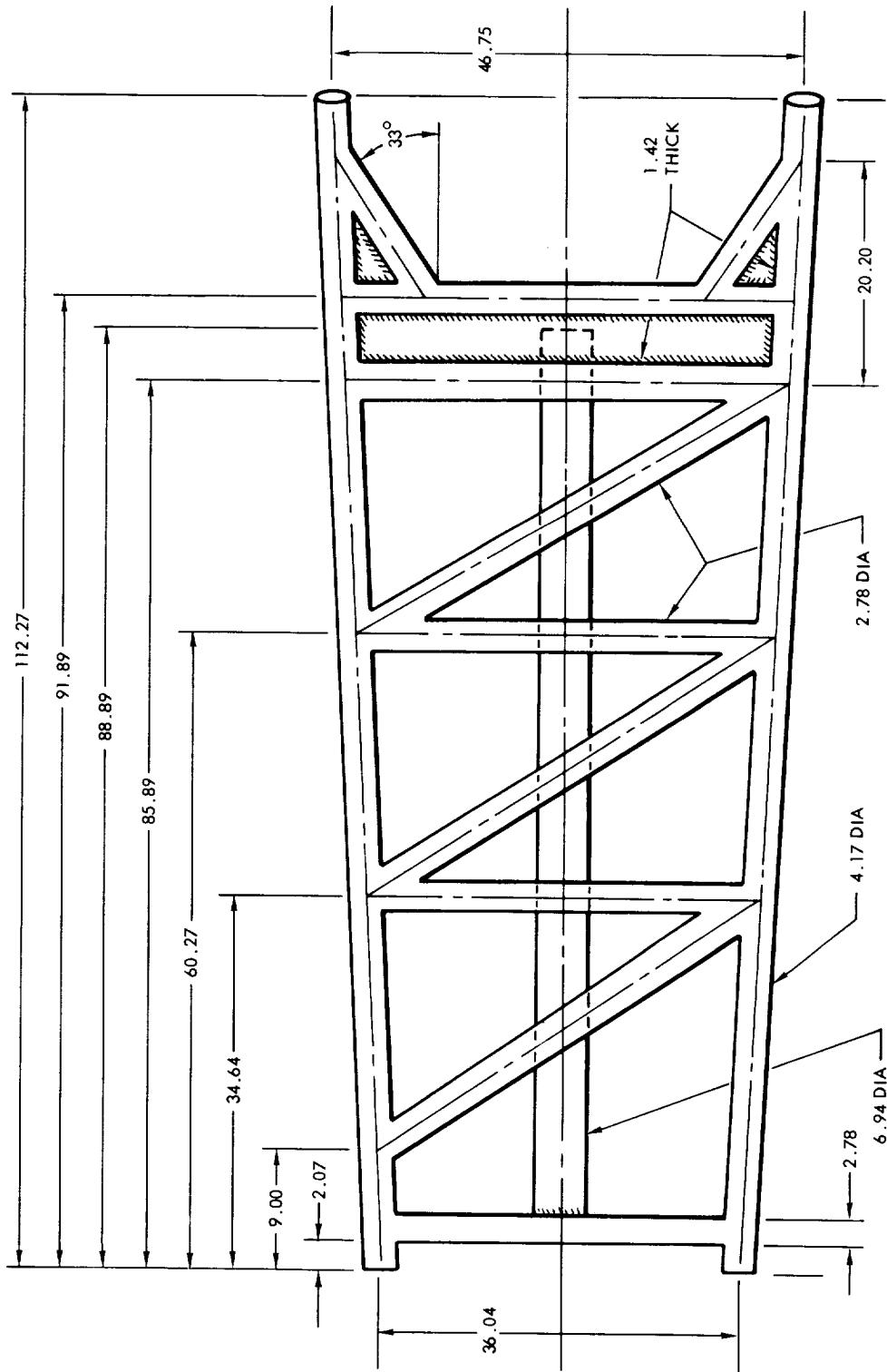
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

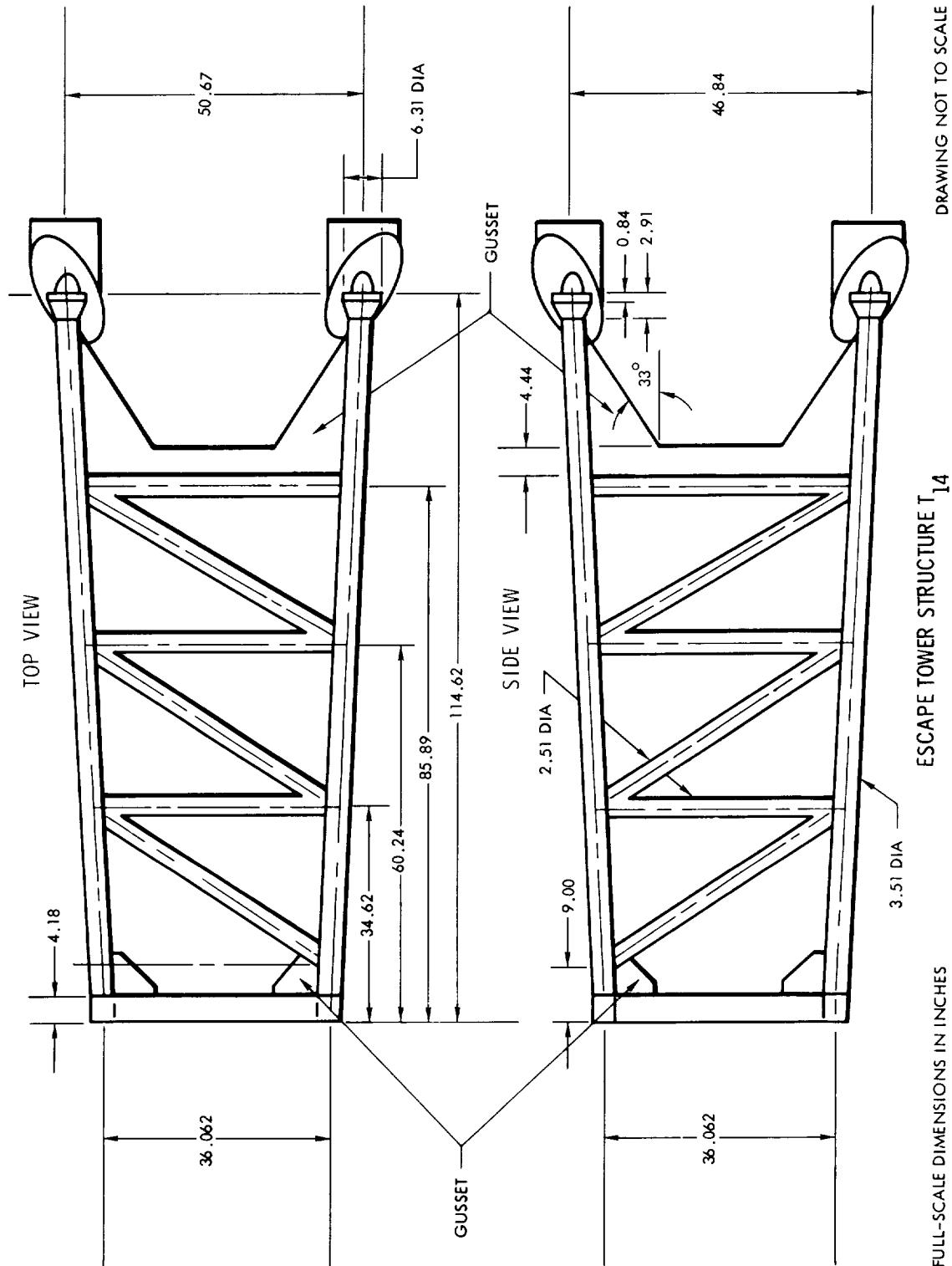
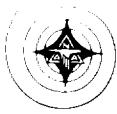
ESCAPE TOWER STRUCTURE T<sub>12</sub>

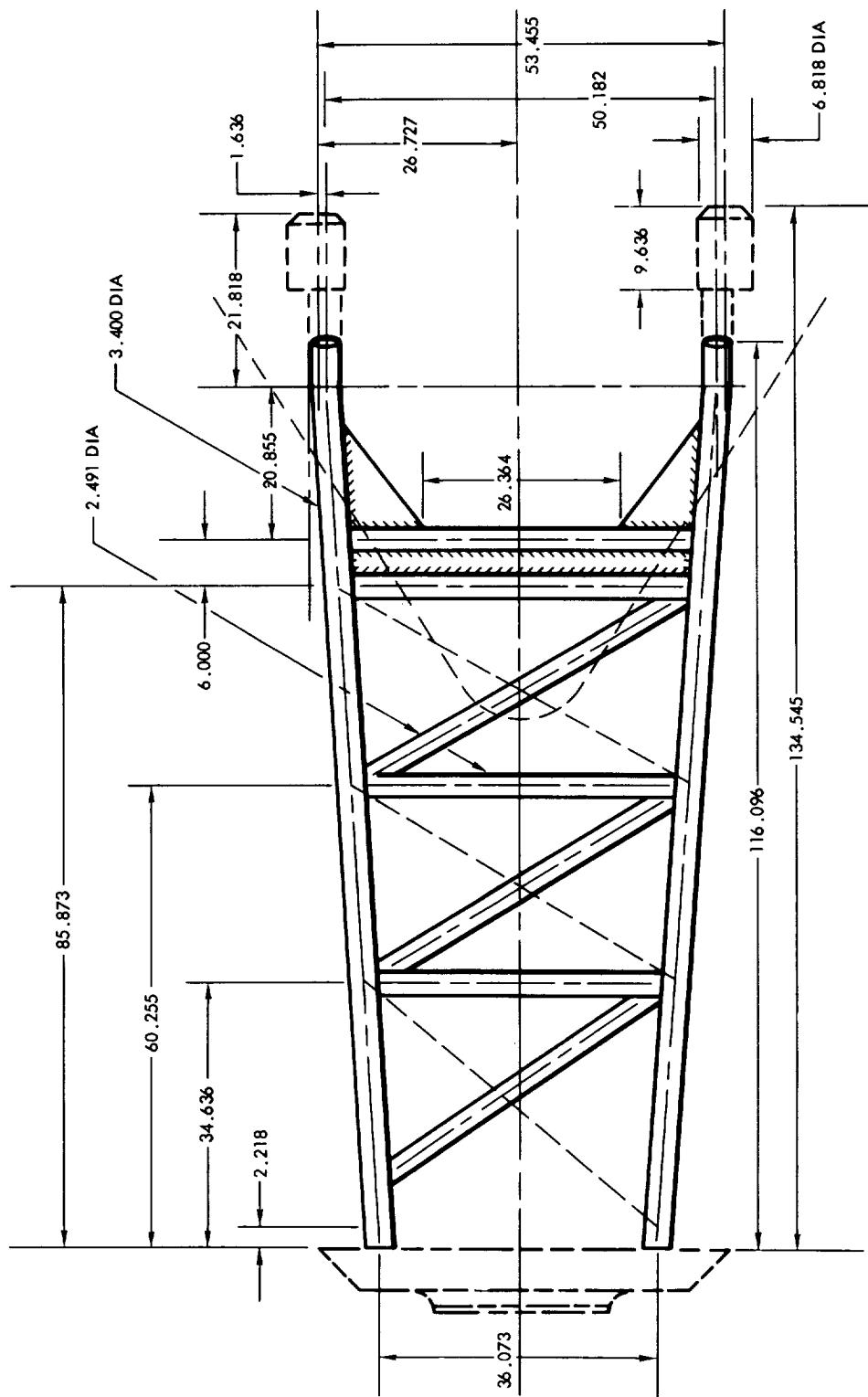
DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T<sub>13</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

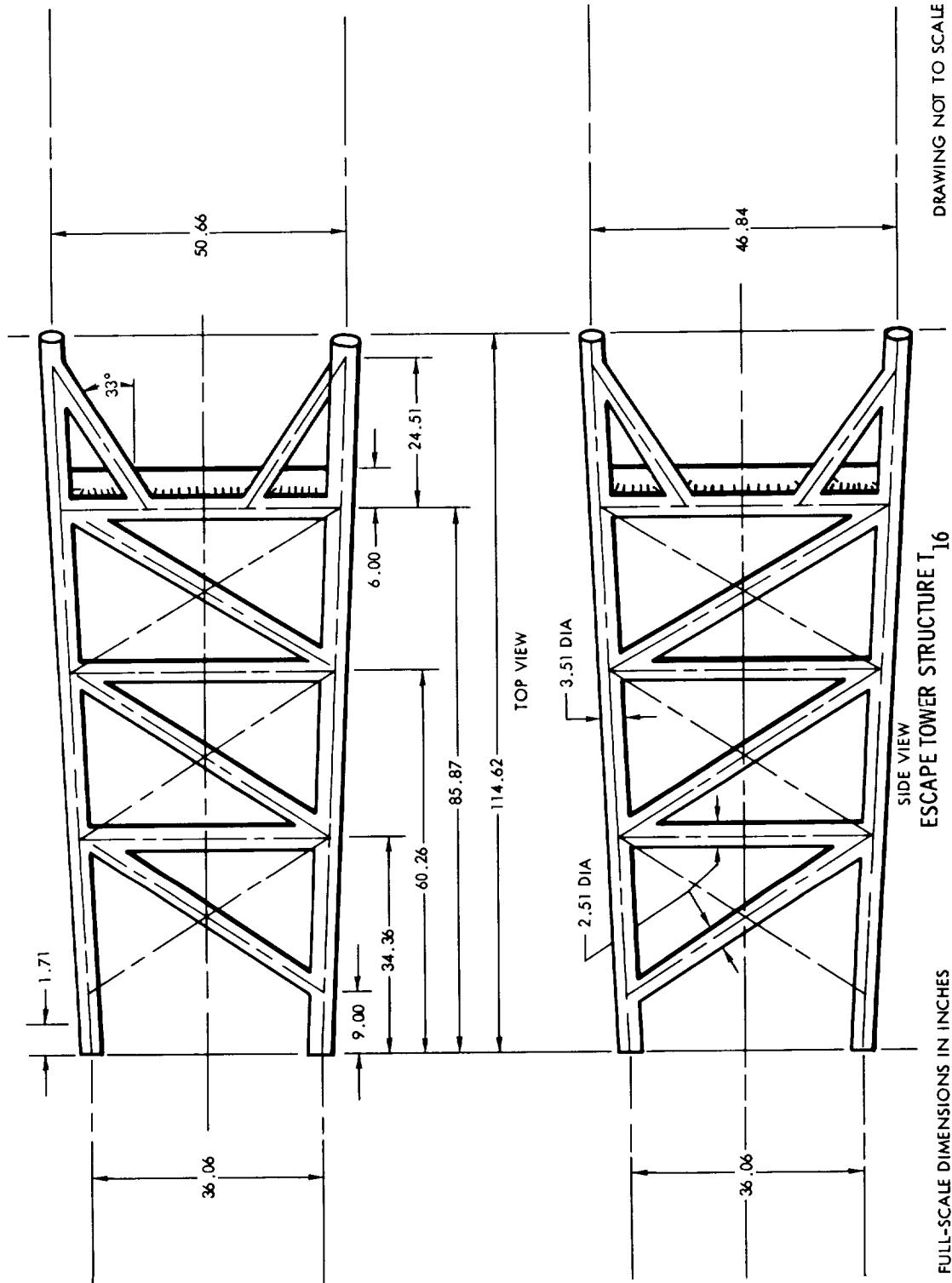


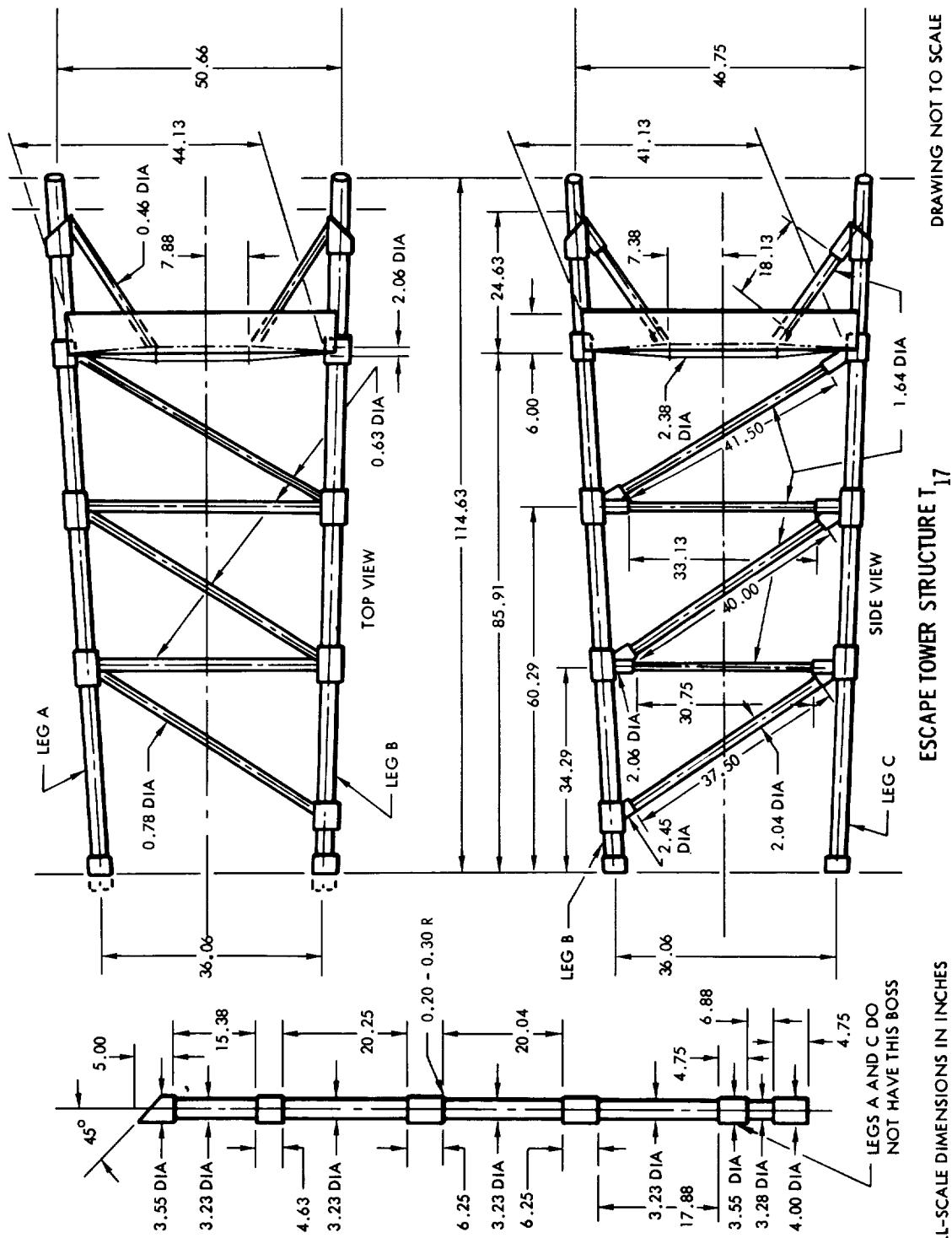
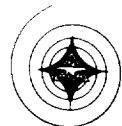


FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T<sub>15</sub>

DRAWING NOT TO SCALE

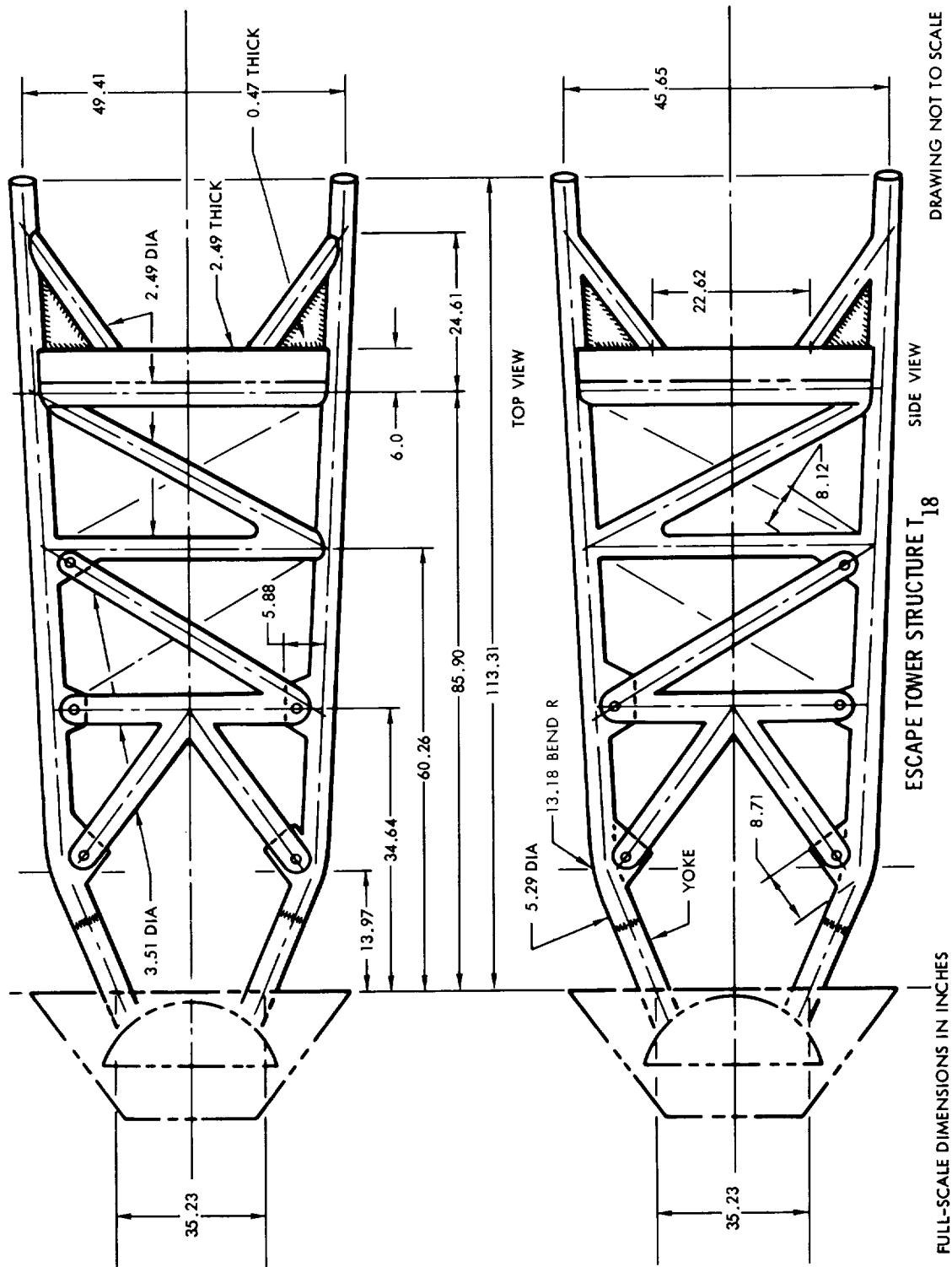
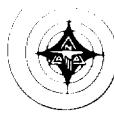


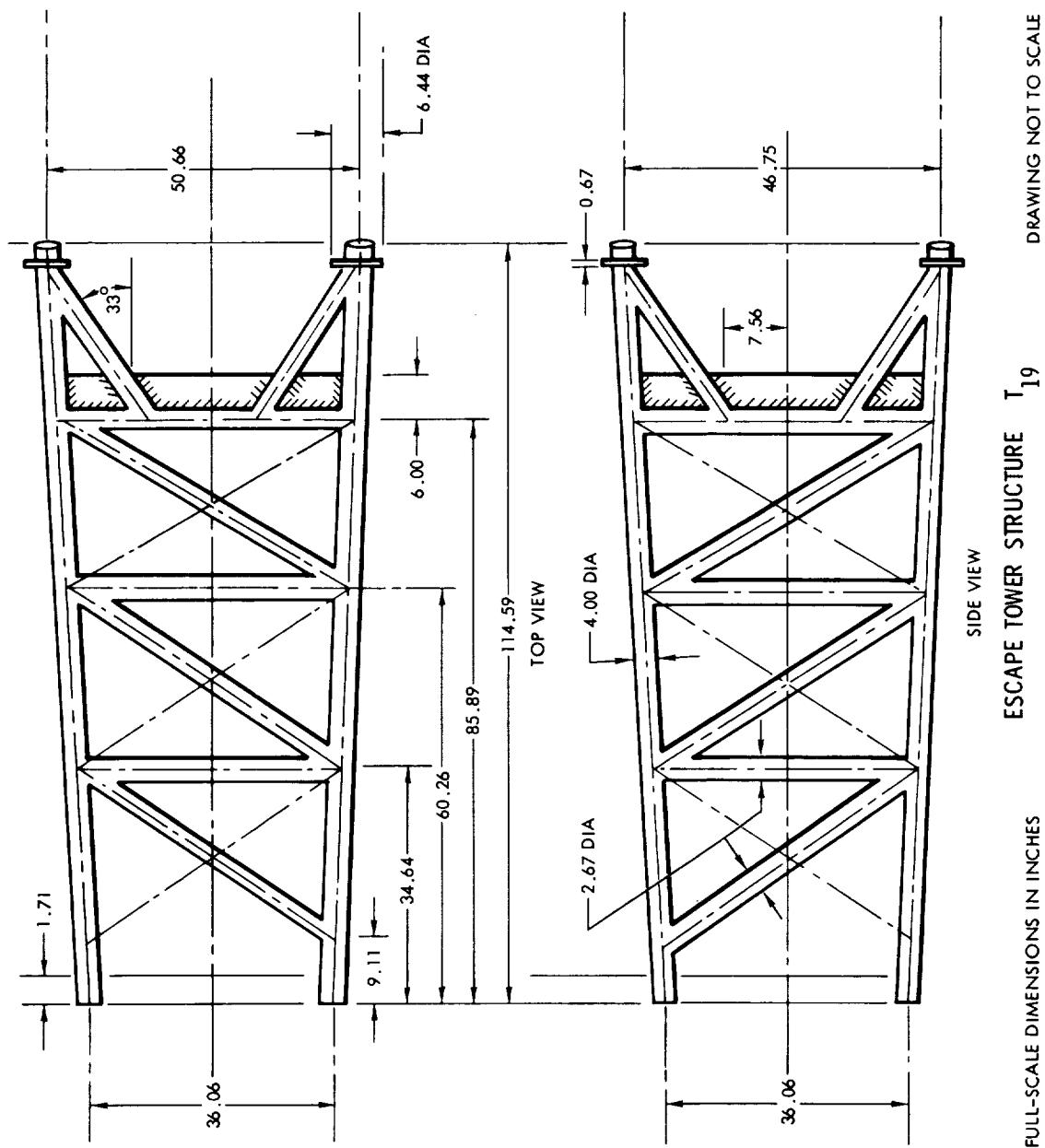


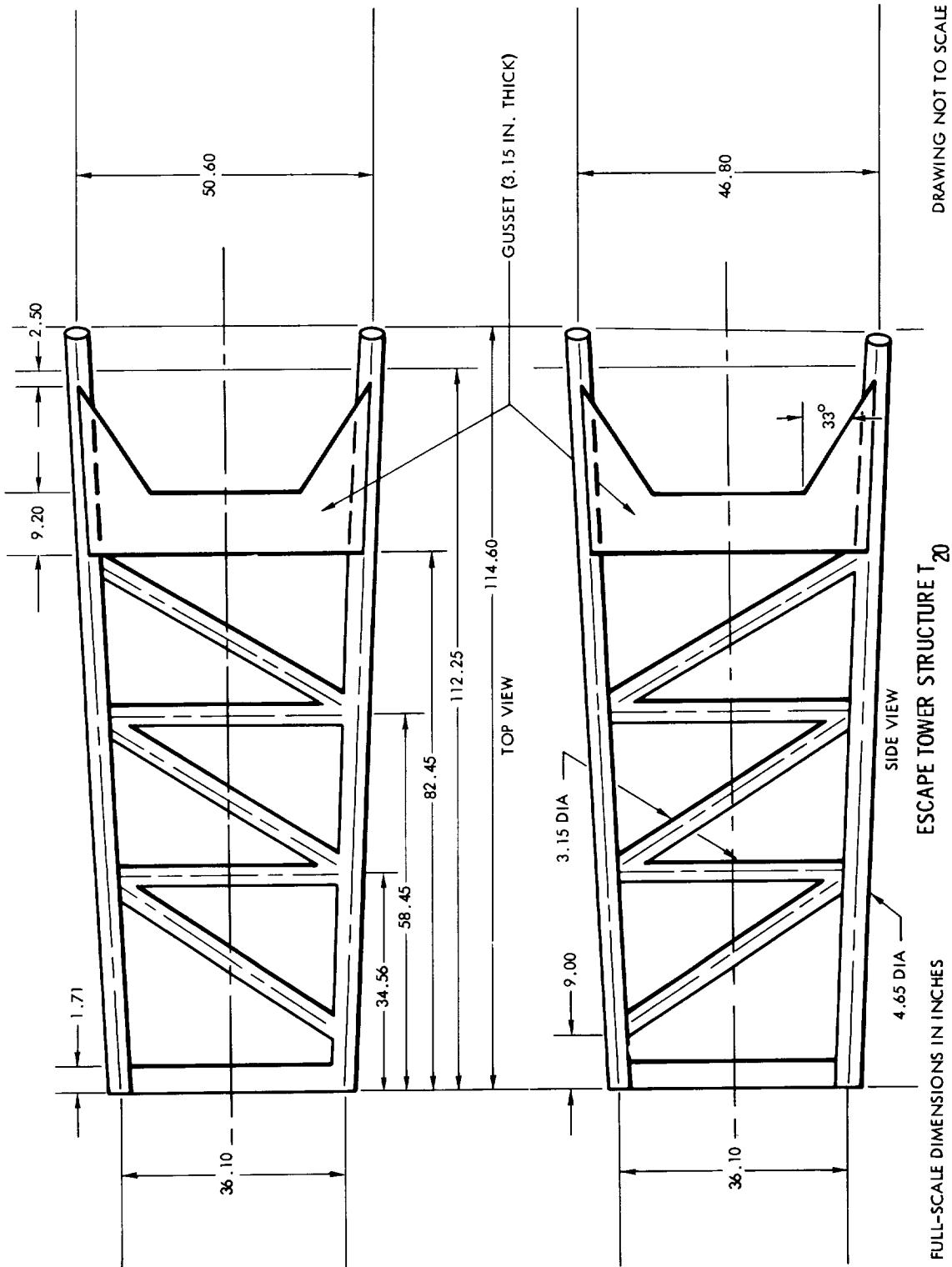
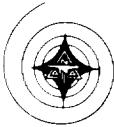
## FULL-SCALE DIMENSIONS IN INCHES

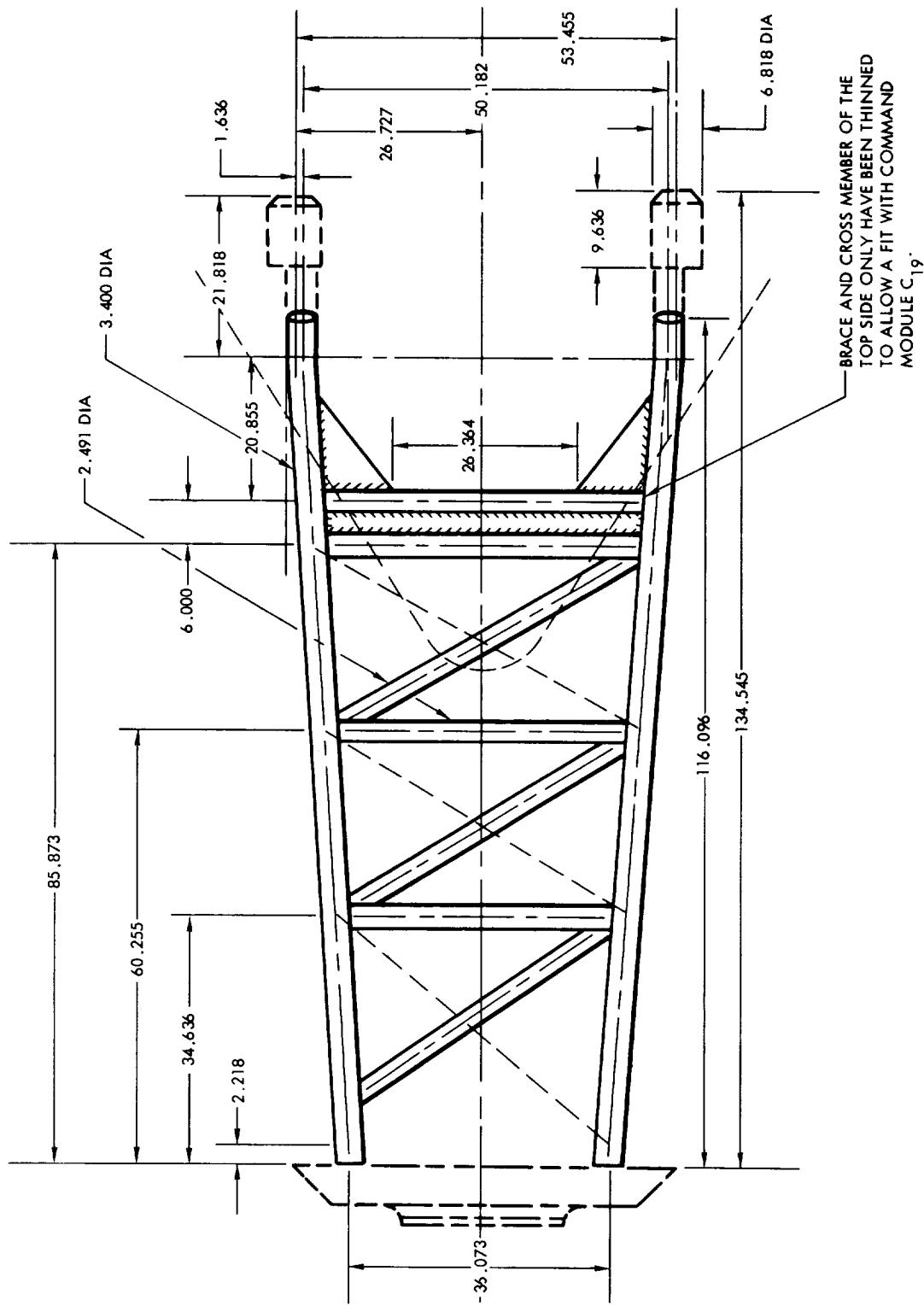
2-58

SID 63-44



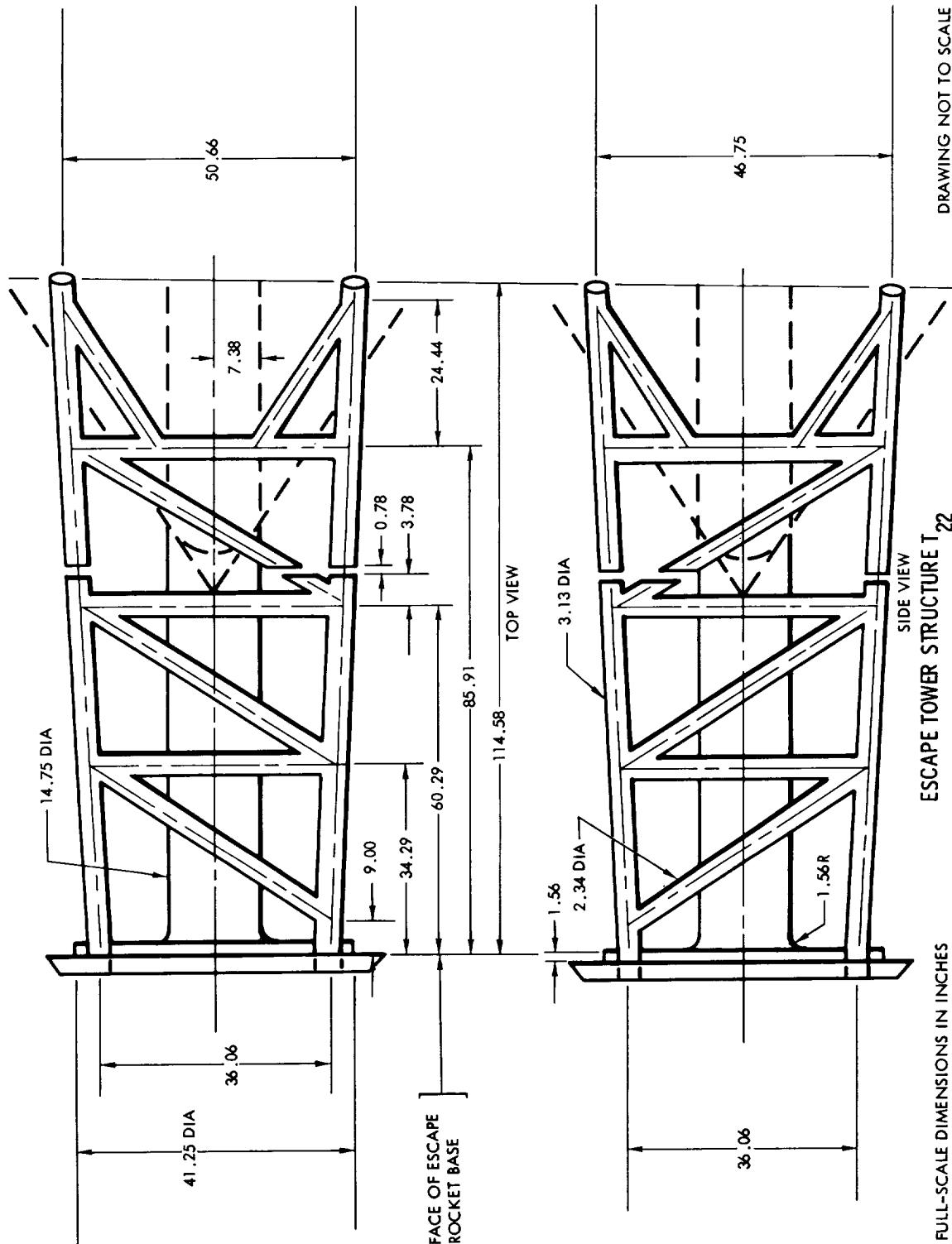
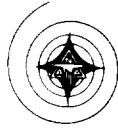


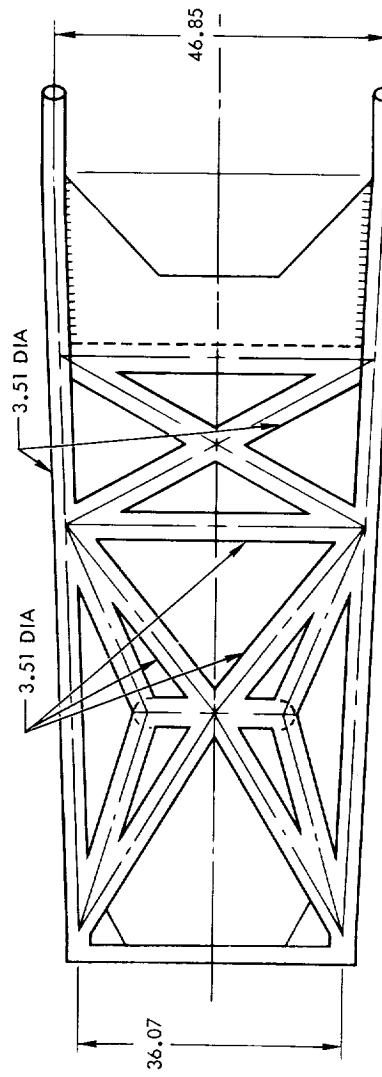
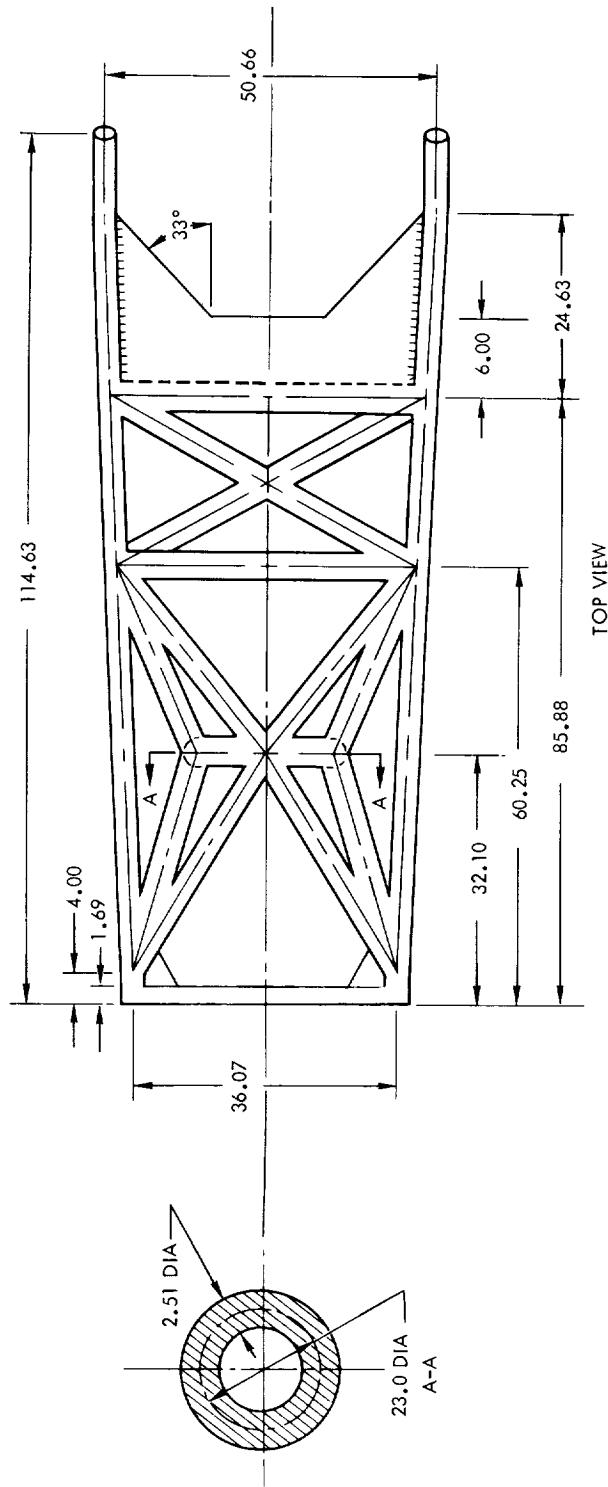




DRAWING NOT TO SCALE

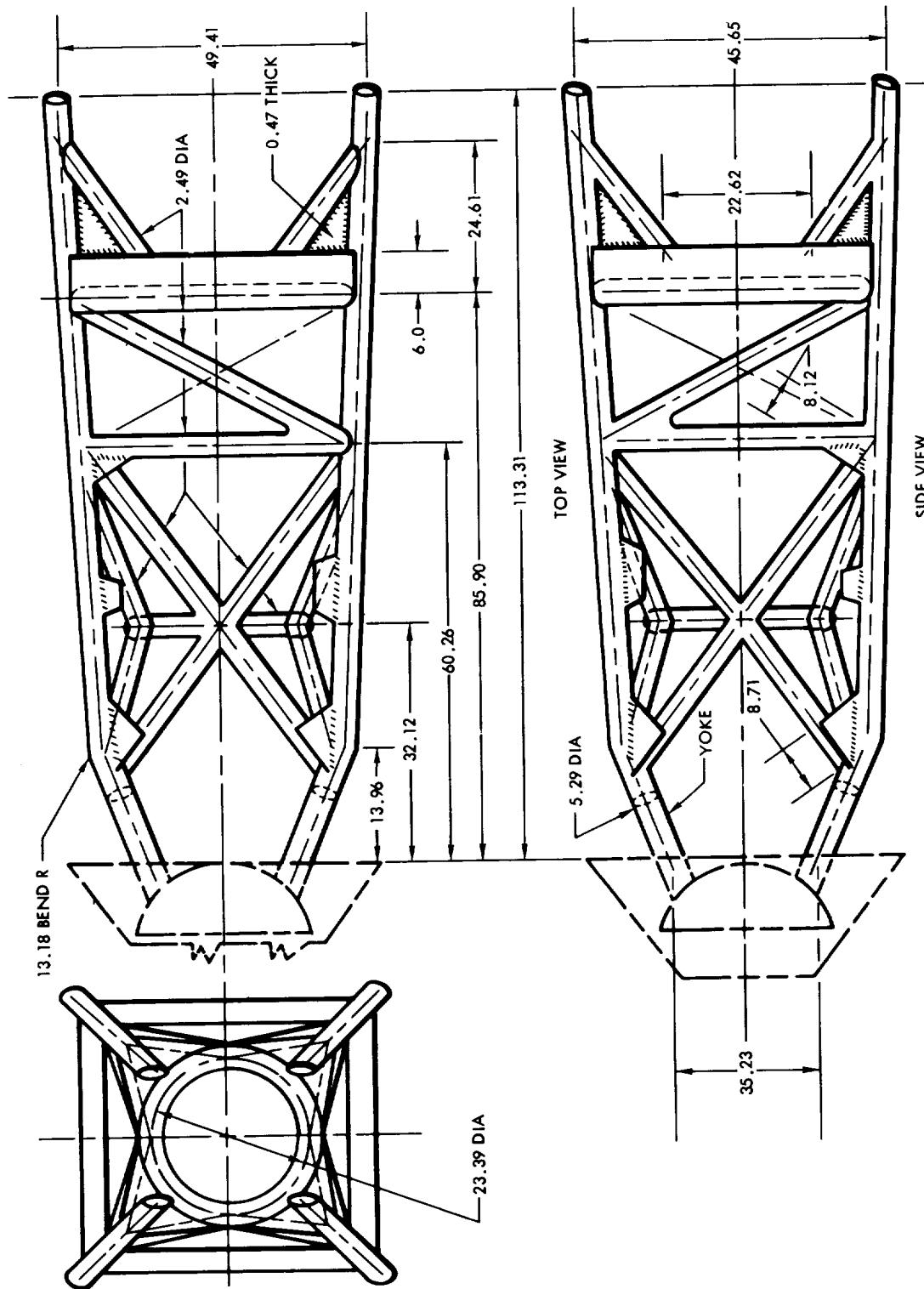
ESCAPE TOWER STRUCTURE T<sub>21</sub>

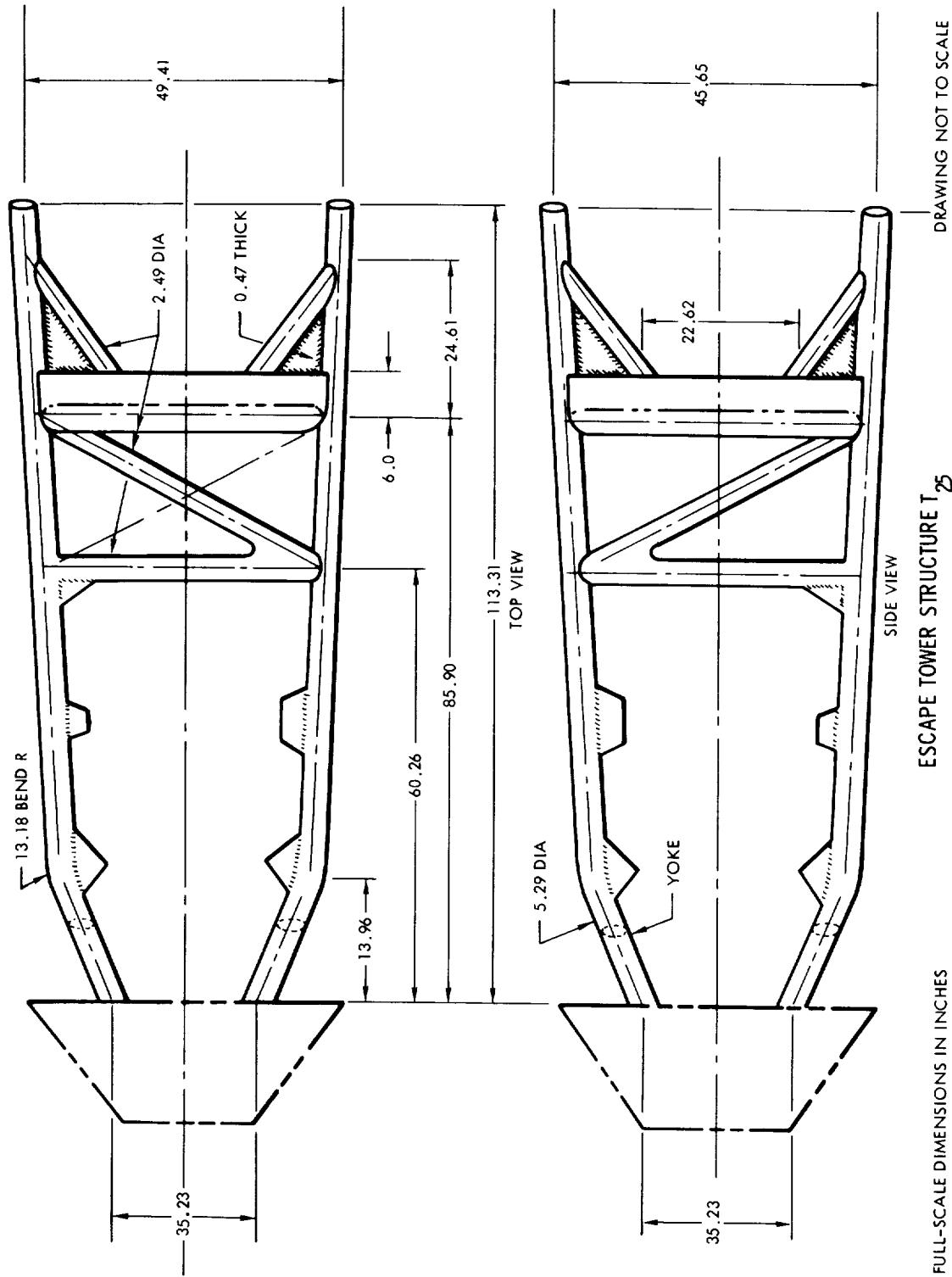
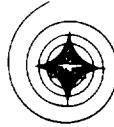


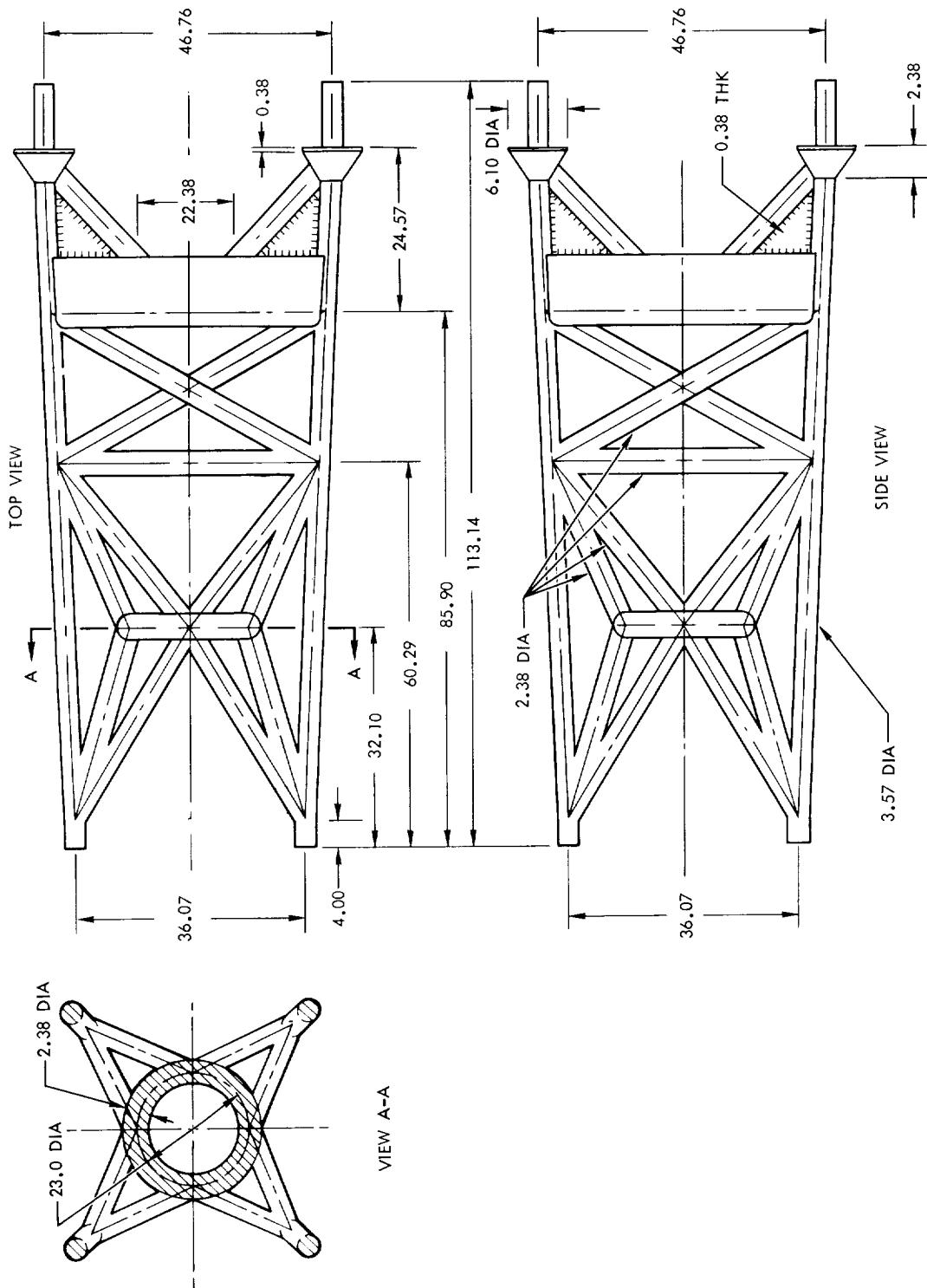


FULL-SCALE DIMENSIONS IN INCHES  
DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE 123

DRAWING NOT TO SCALE  
ESCAPE TOWER STRUCTURE T<sub>24</sub>2-65  
SID 63-44

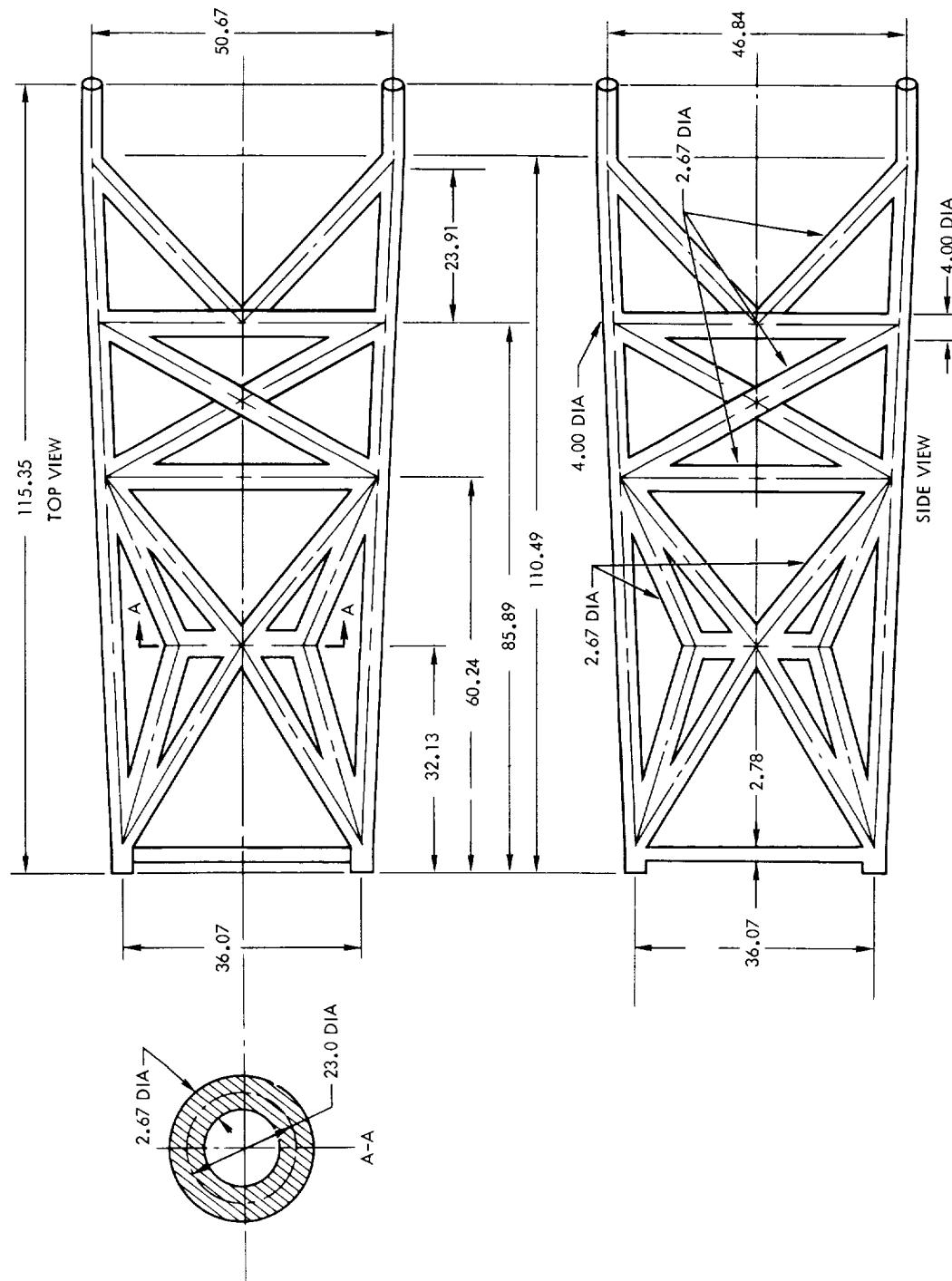
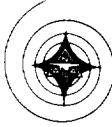




FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

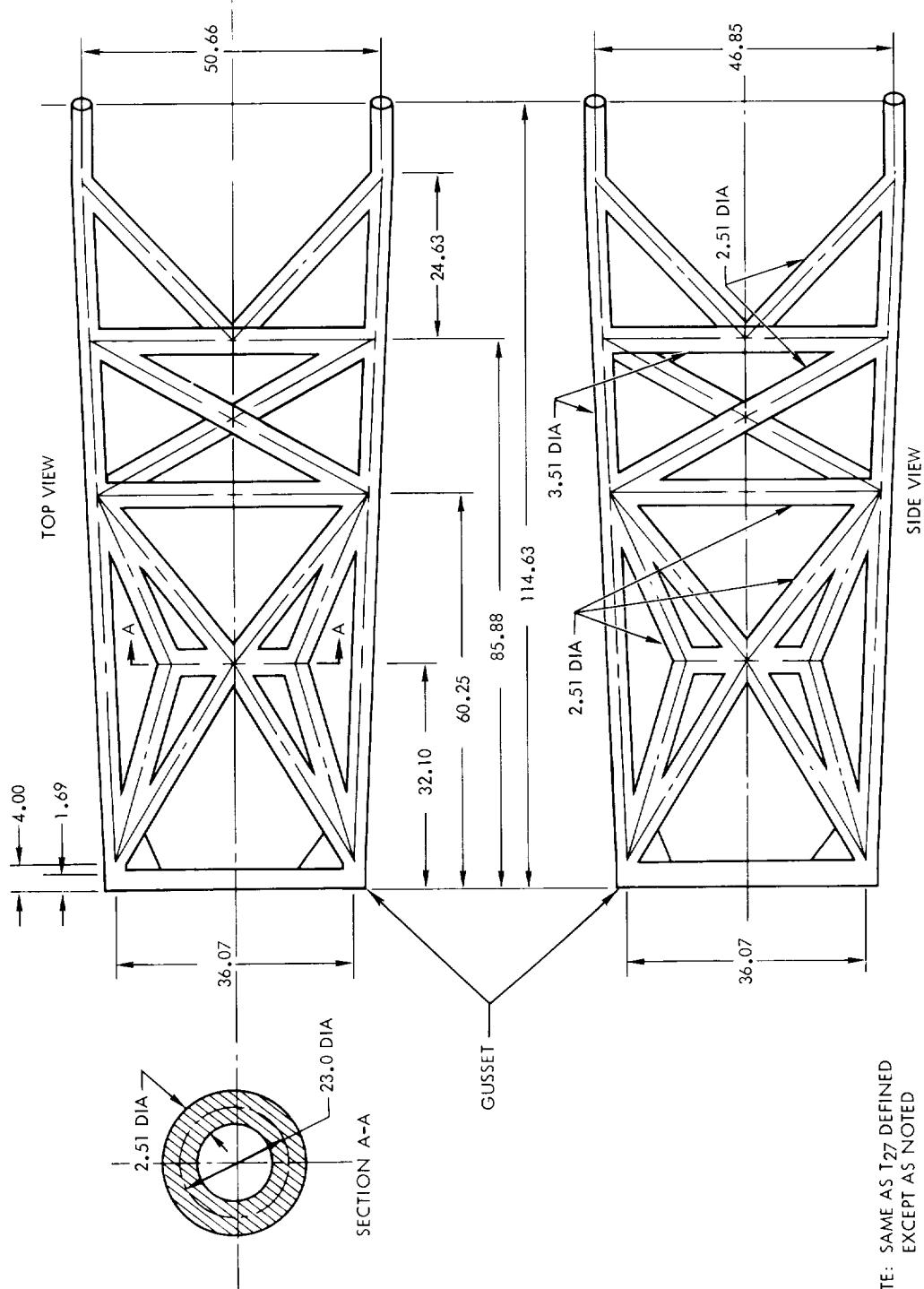
ESCAPE TOWER STRUCTURE T<sub>26</sub>



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T27  
(DEFINED)

DRAWING NOT TO SCALE

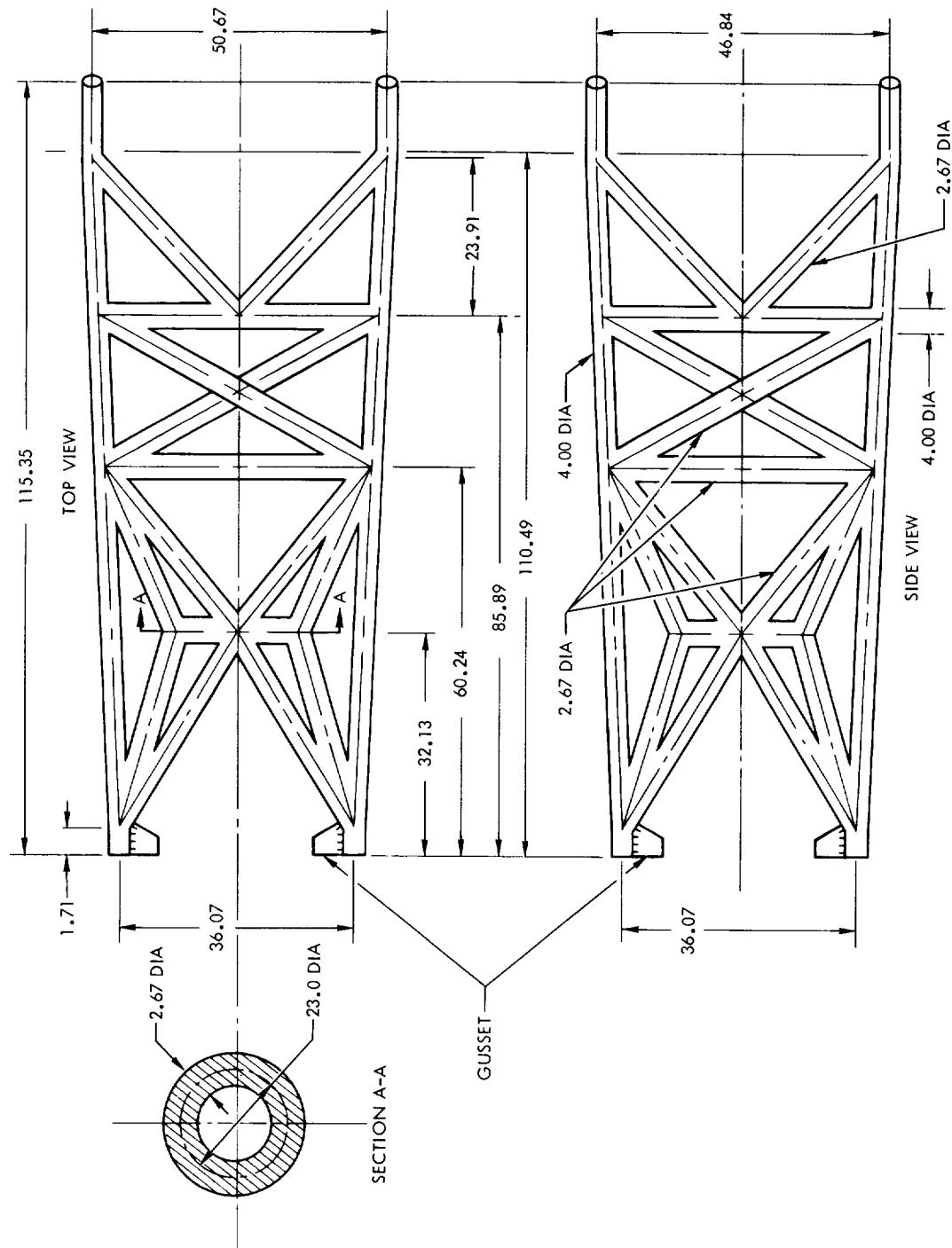


NOTE: SAME AS T27 DEFINED  
EXCEPT AS NOTED

FULL-SCALE DIMENSIONS IN INCHES

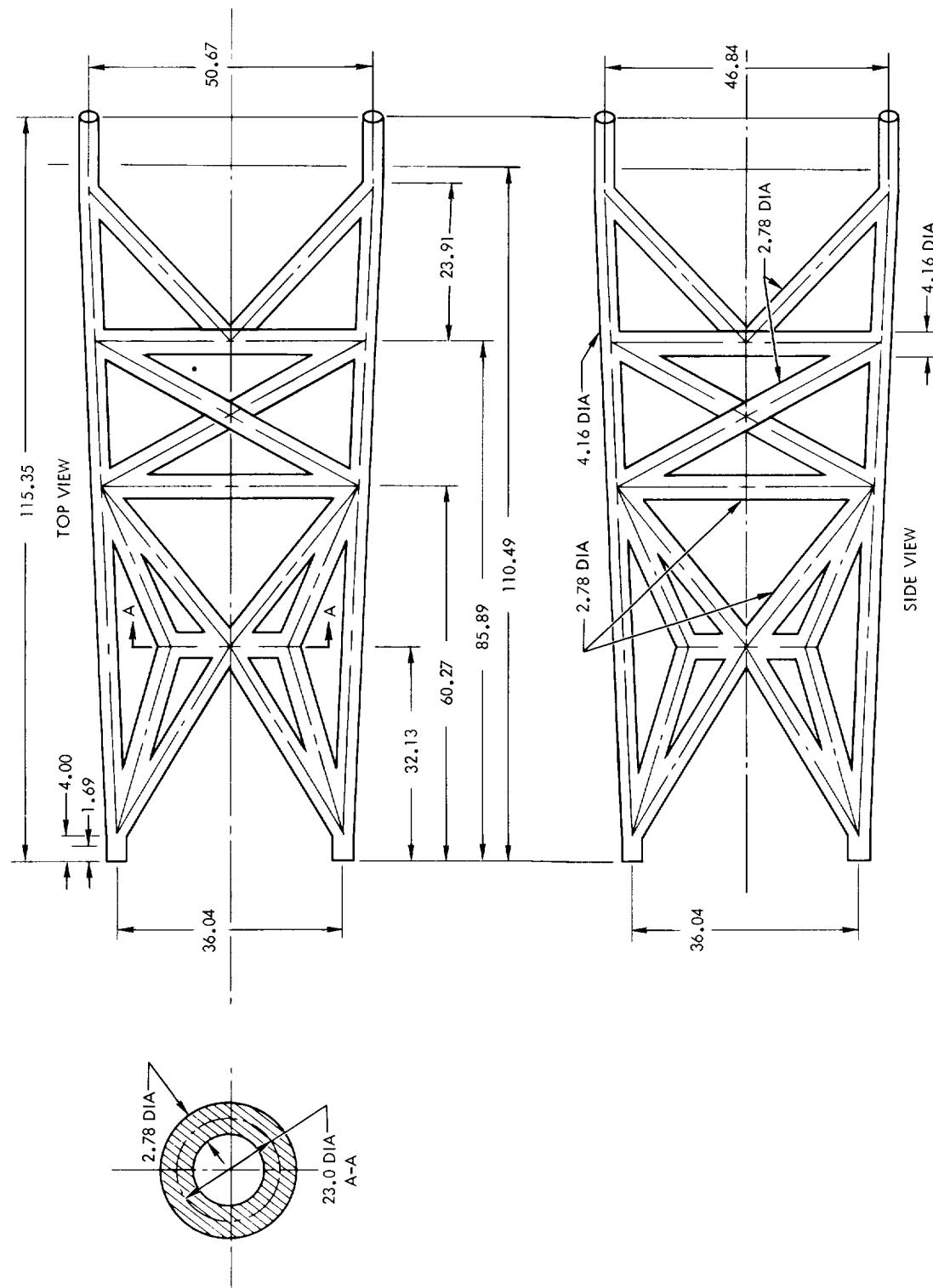
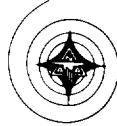
ESCAPE TOWER STRUCTURE T27  
(FD-5)

DRAWING NOT TO SCALE

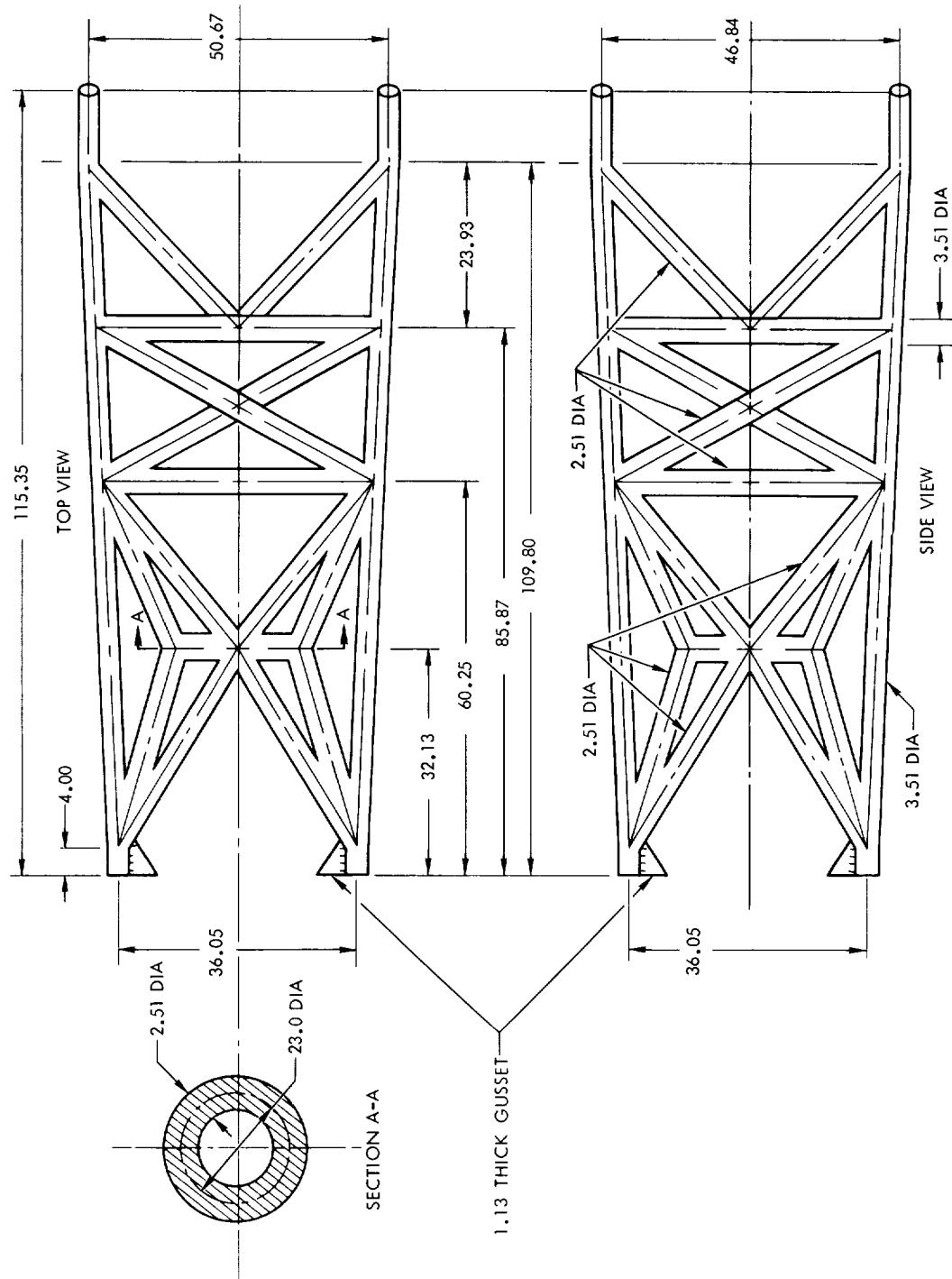


DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T27  
(PS-3 AND FS-3)



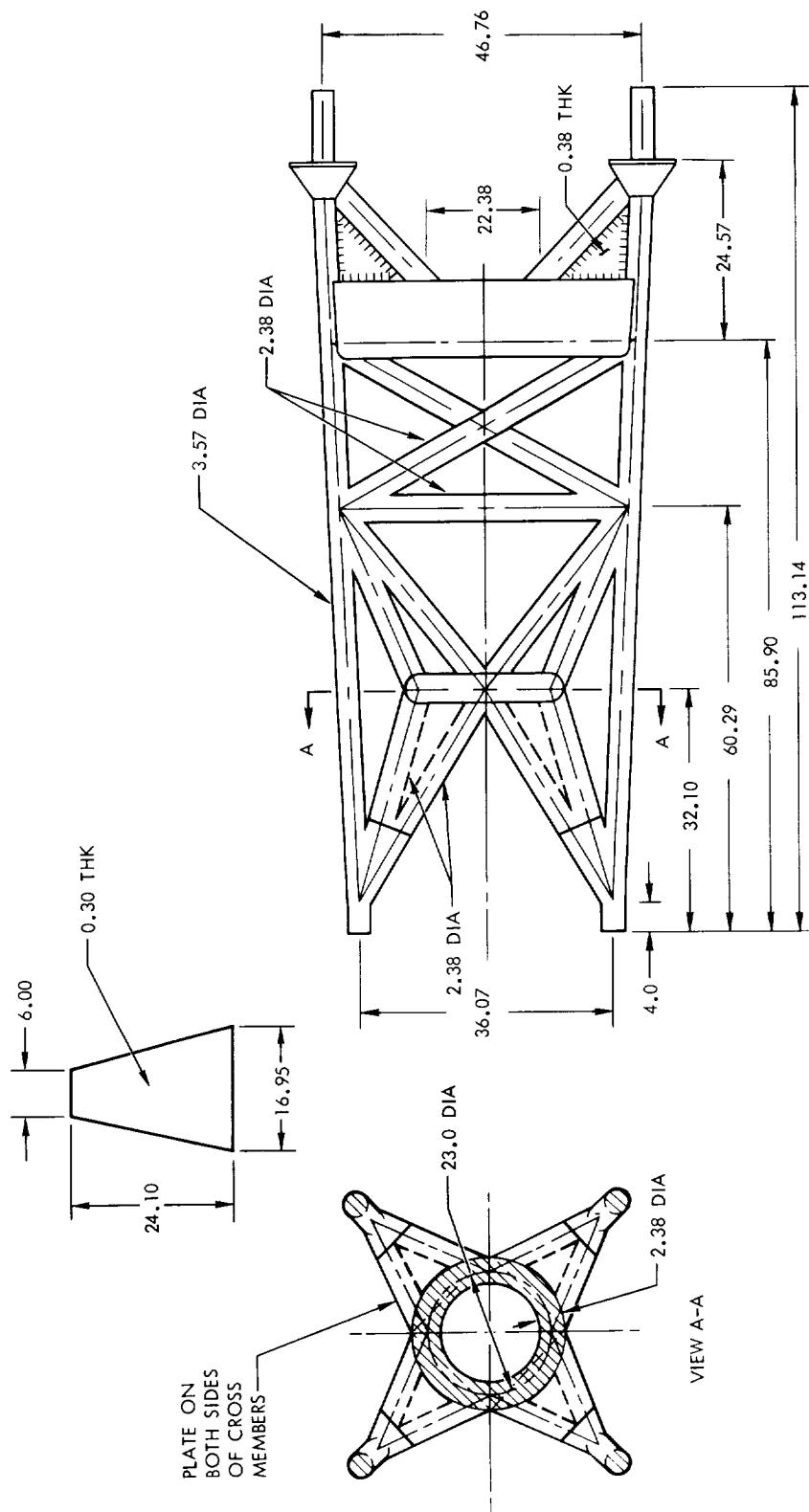
ESCAPE TOWER STRUCTURE T28



DRAWING NOT TO SCALE

## ESCAPE TOWER STRUCTURE T29

FULL-SCALE DIMENSIONS IN INCHES

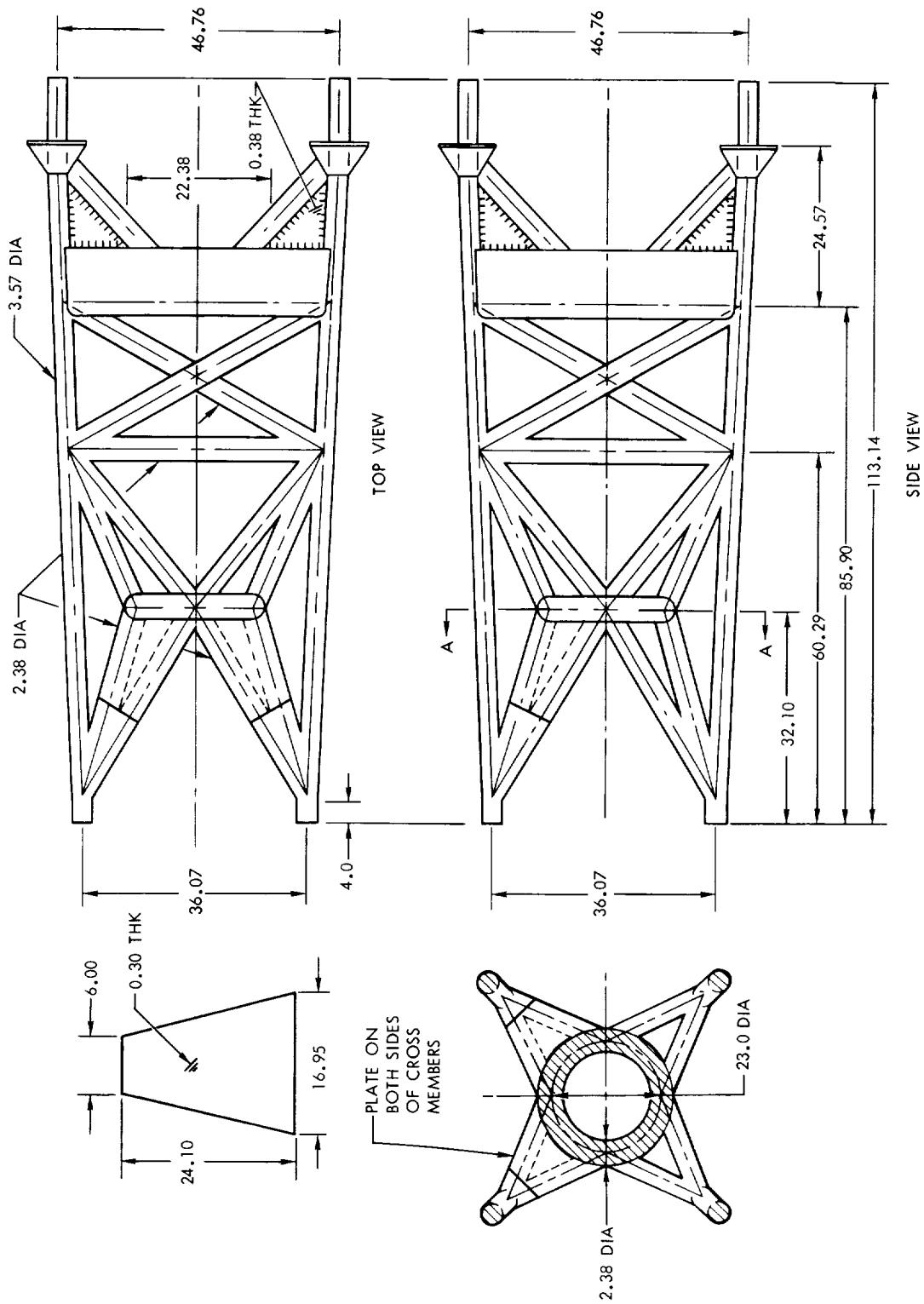


FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T<sub>30</sub>

DRAWING NOT TO SCALE

TOP VIEW SHOWN - SIDE VIEW IDENTICAL



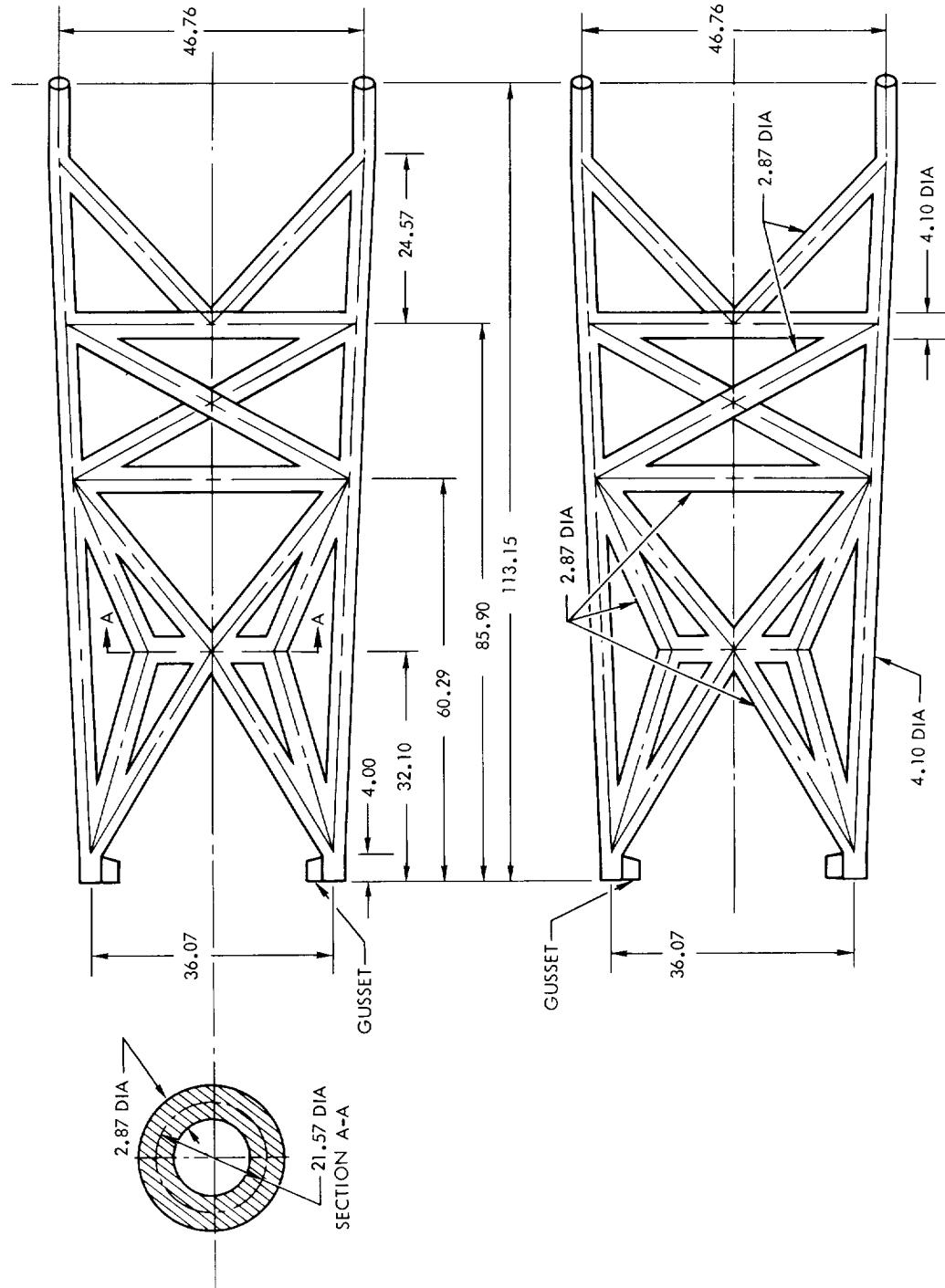
DRAWING NOT TO SCALE

## ESCAPE TOWER STRUCTURE T31

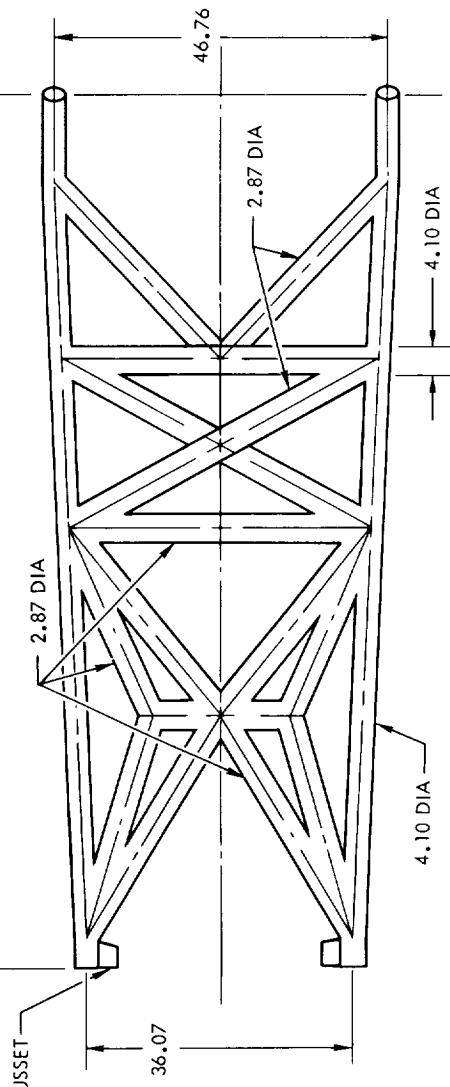
FULL-SCALE DIMENSIONS IN INCHES



TOP VIEW



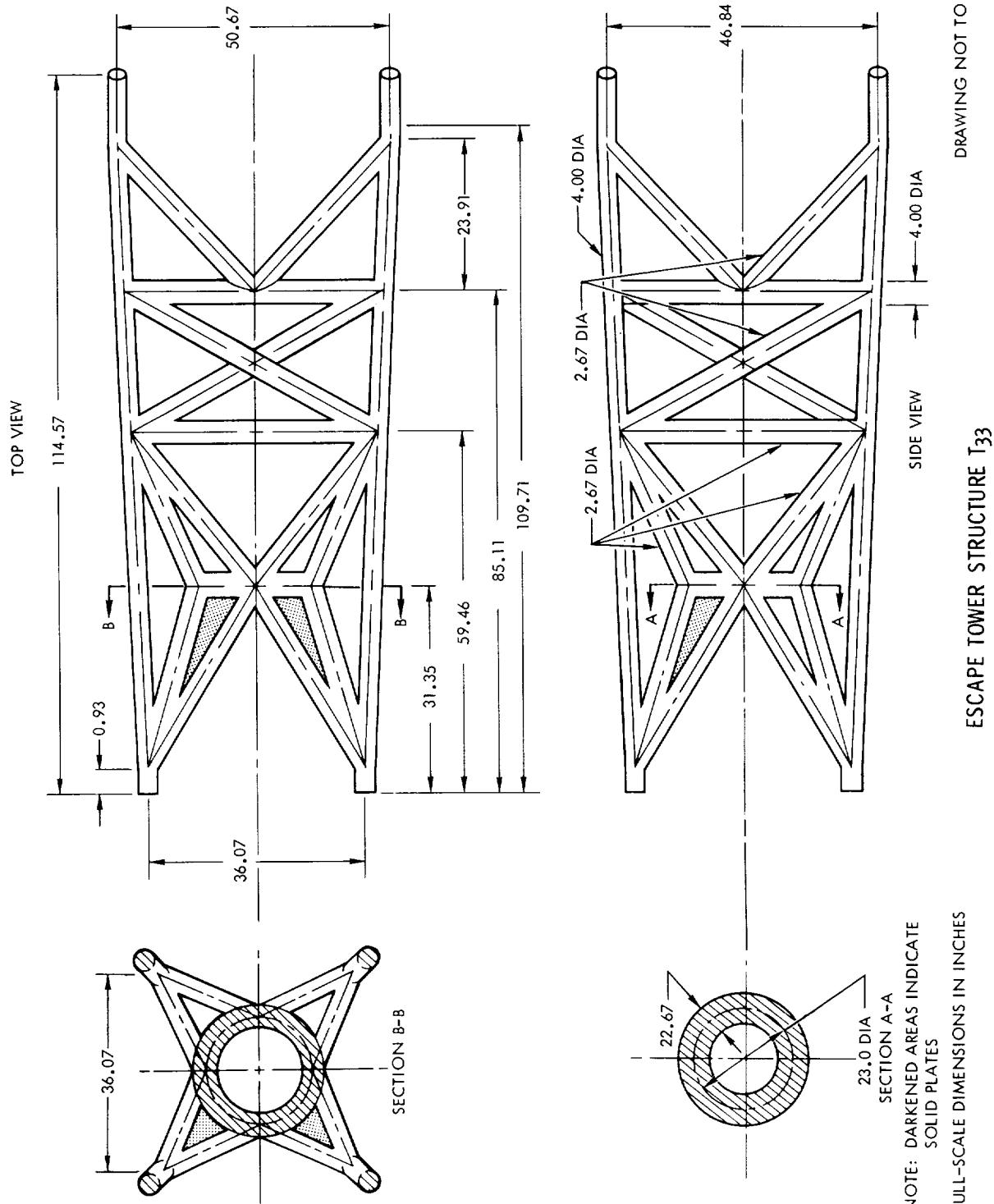
SIDE VIEW

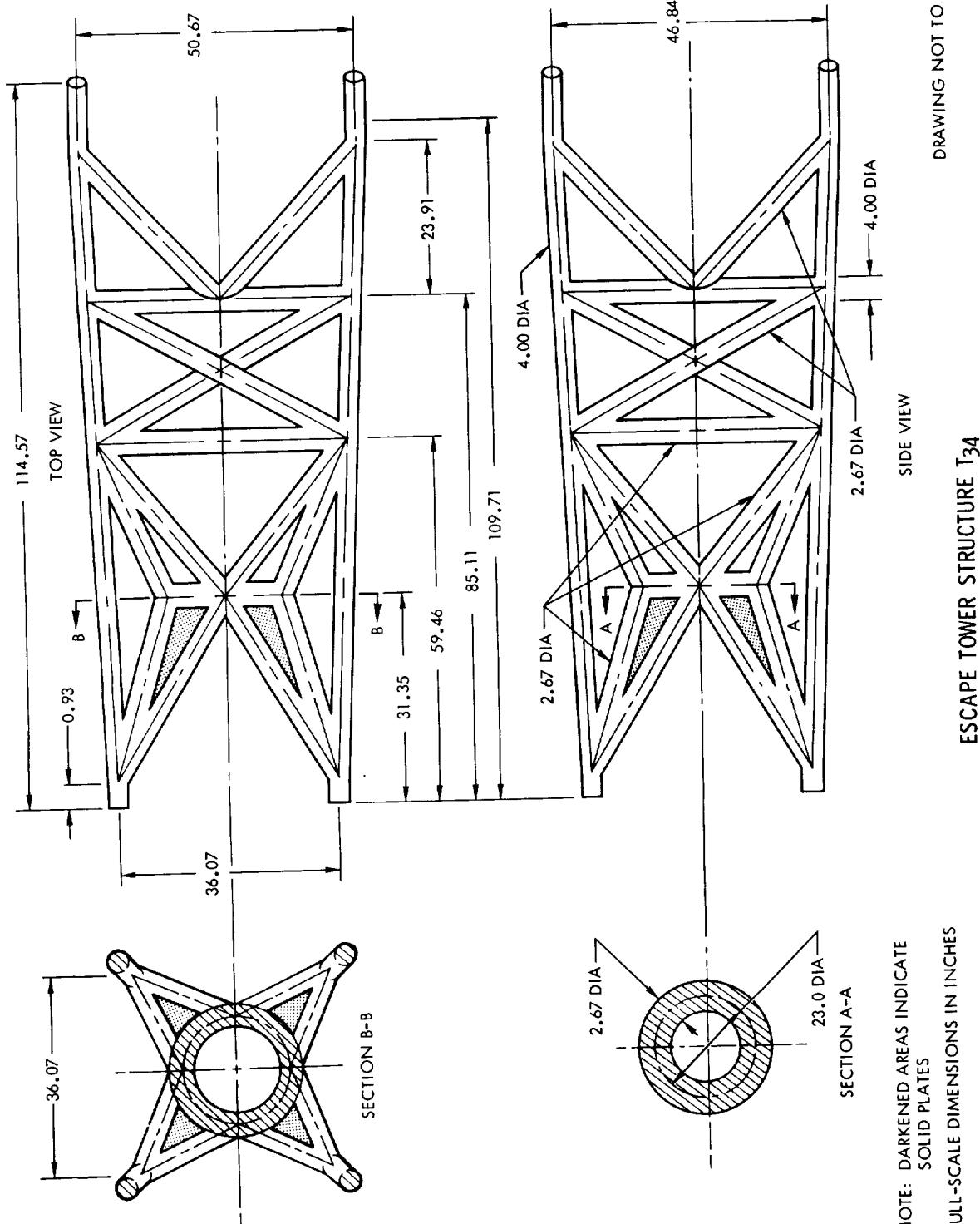


FULL-SCALE DIMENSIONS IN INCHES

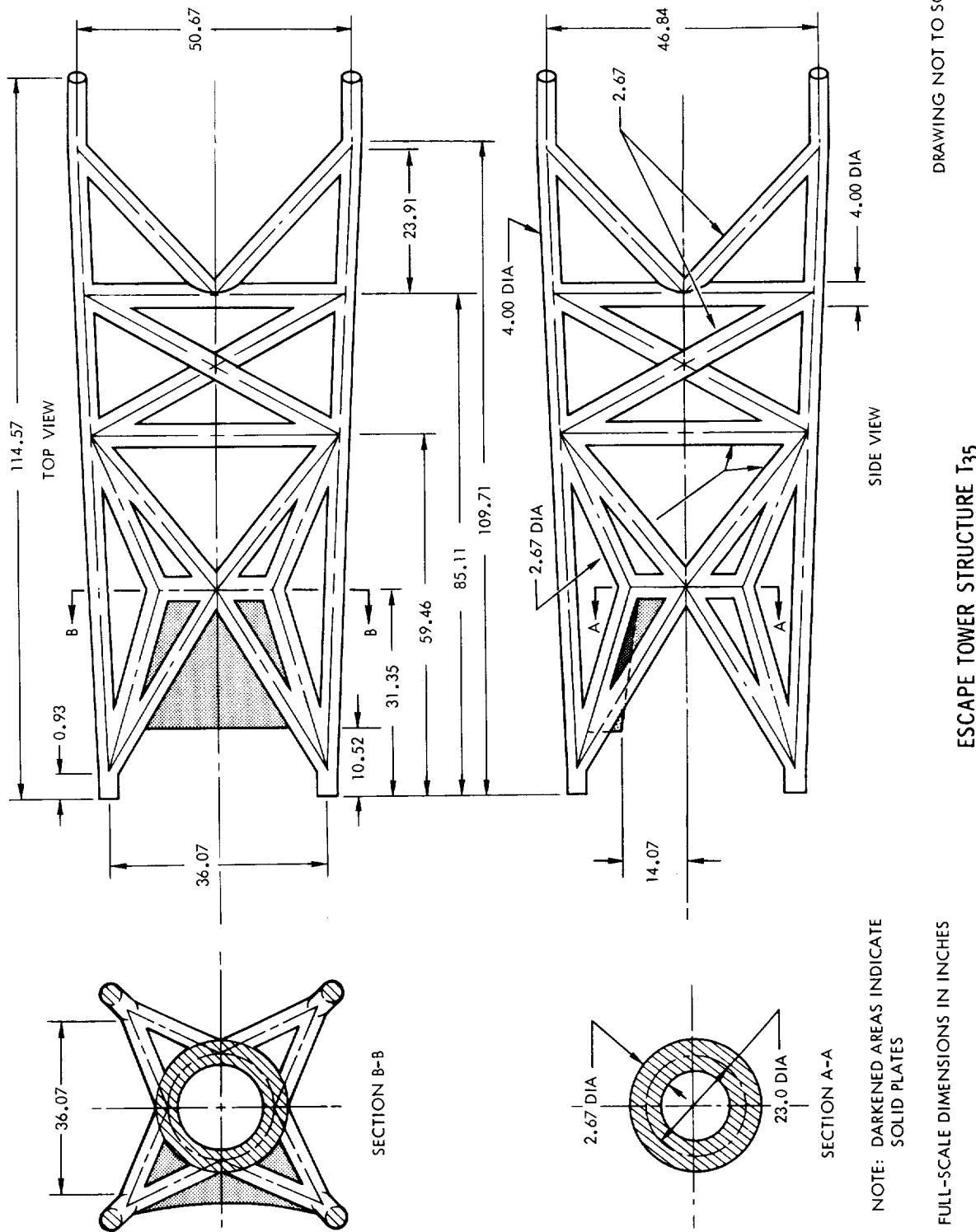
DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T32





NOTE: DARKENED AREAS INDICATE  
SOLID PLATES  
FULL-SCALE DIMENSIONS IN INCHES

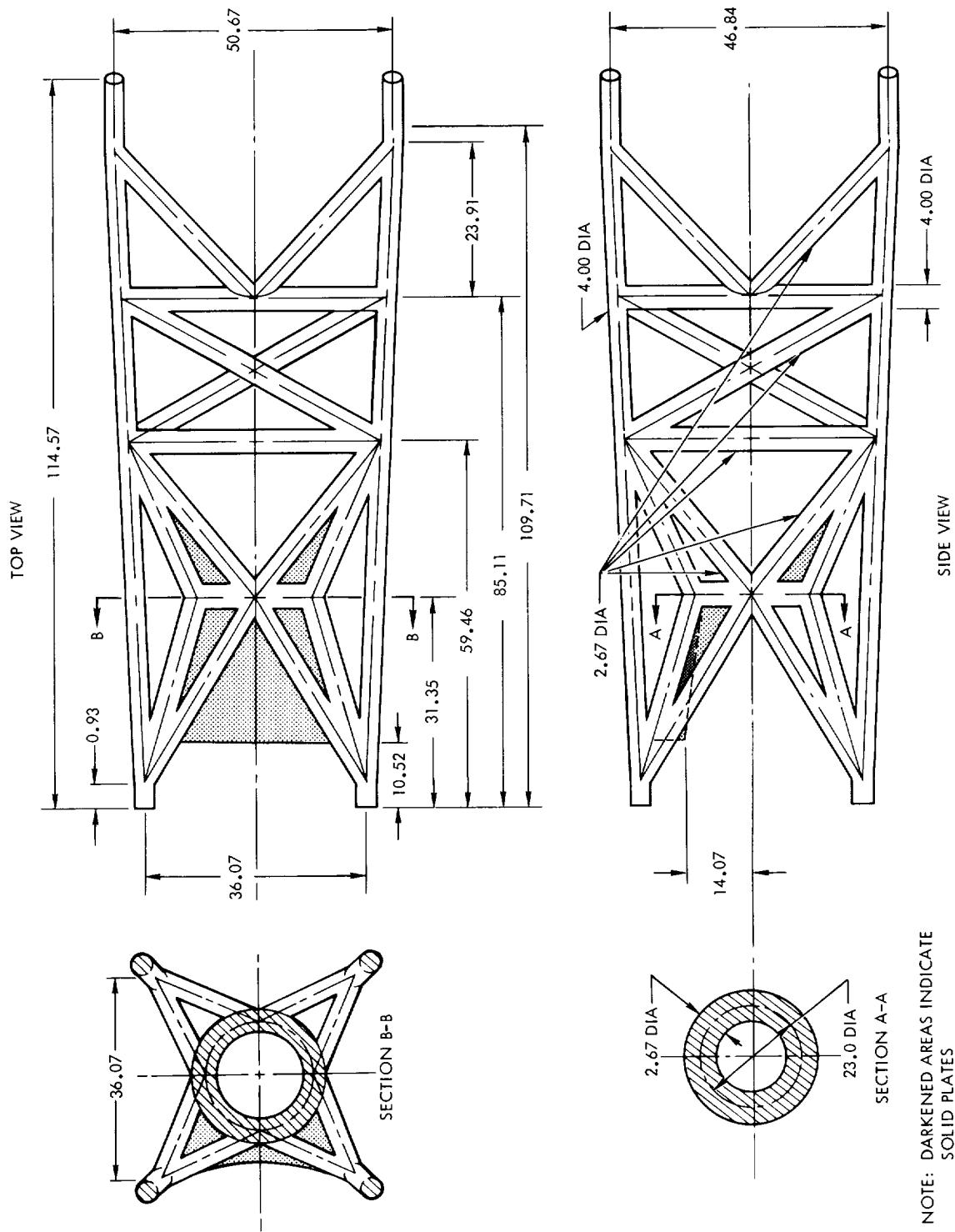
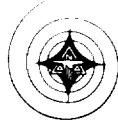


NOTE: DARKENED AREAS INDICATE  
SOLID PLATES

## EII || 1 - SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T35

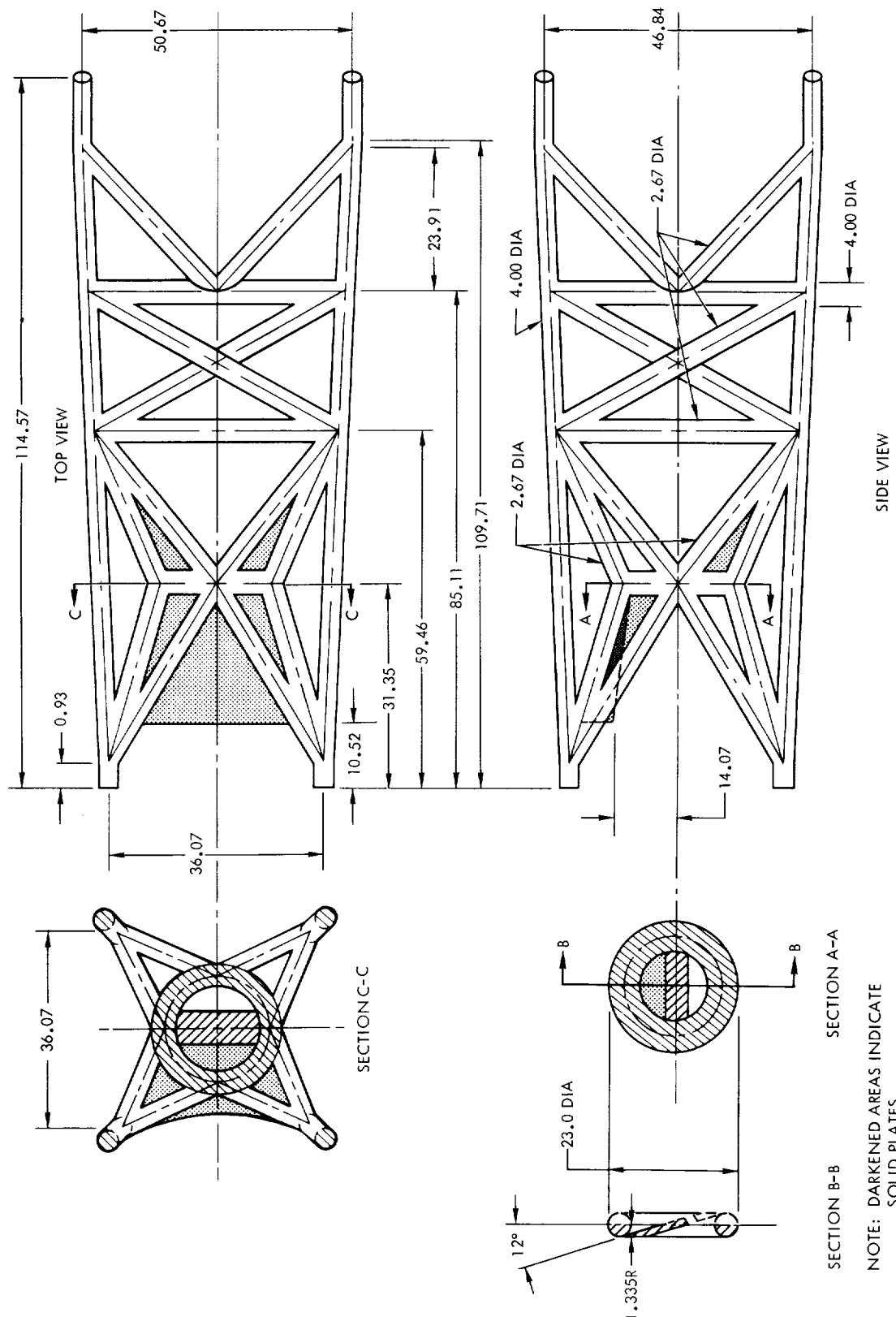


DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T36

NOTE: DARKENED AREAS INDICATE  
SOLID PLATES

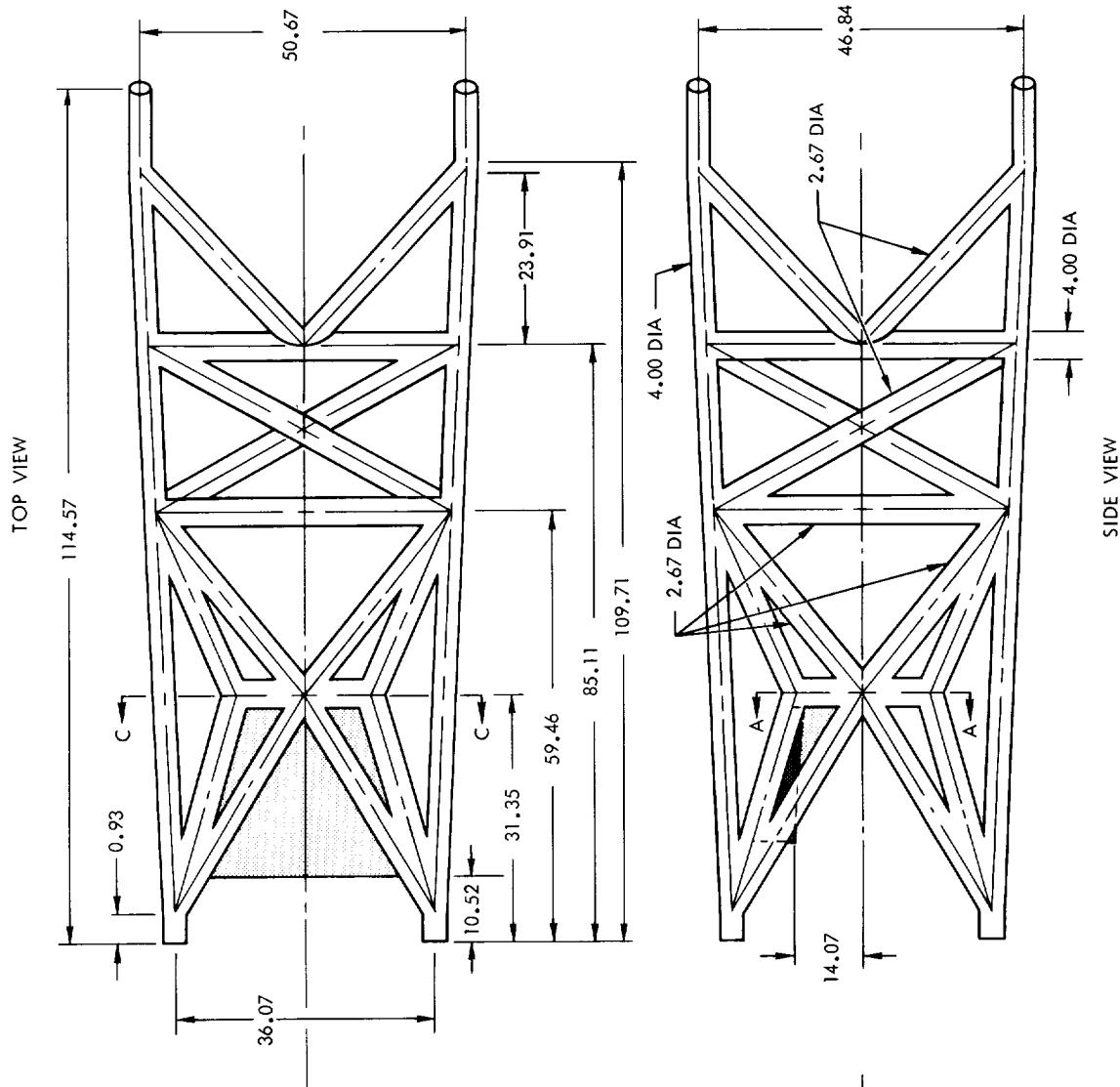
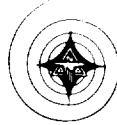
FULL-SCALE DIMENSIONS IN INCHES



DRAWING NOT TO SCALE

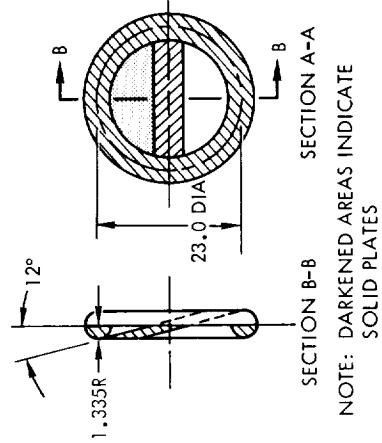
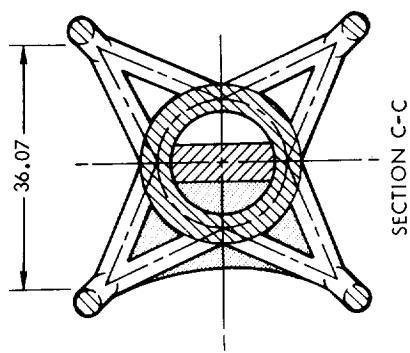
ESCAPE TOWER STRUCTURE T37

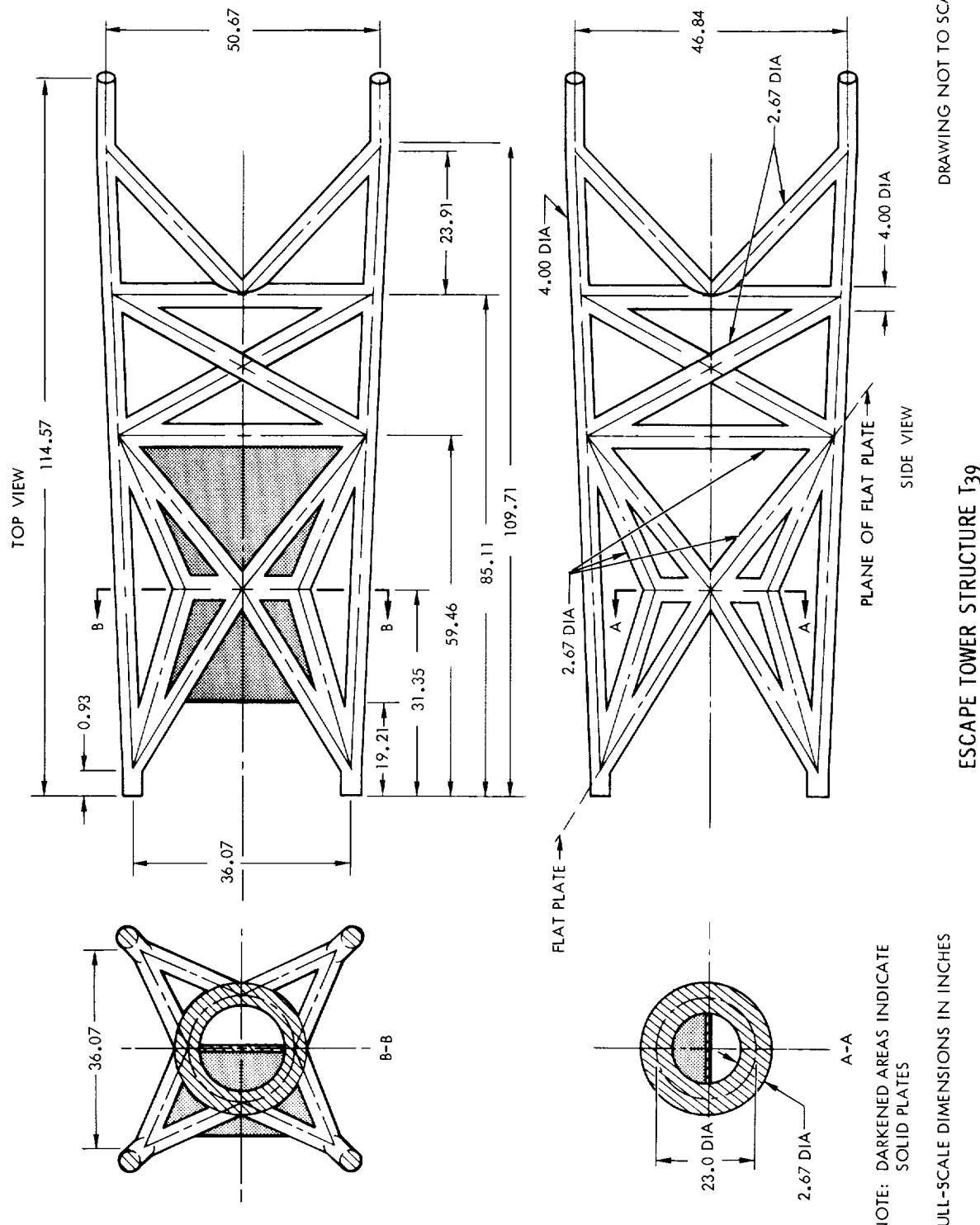
FULL-SCALE DIMENSIONS IN INCHES

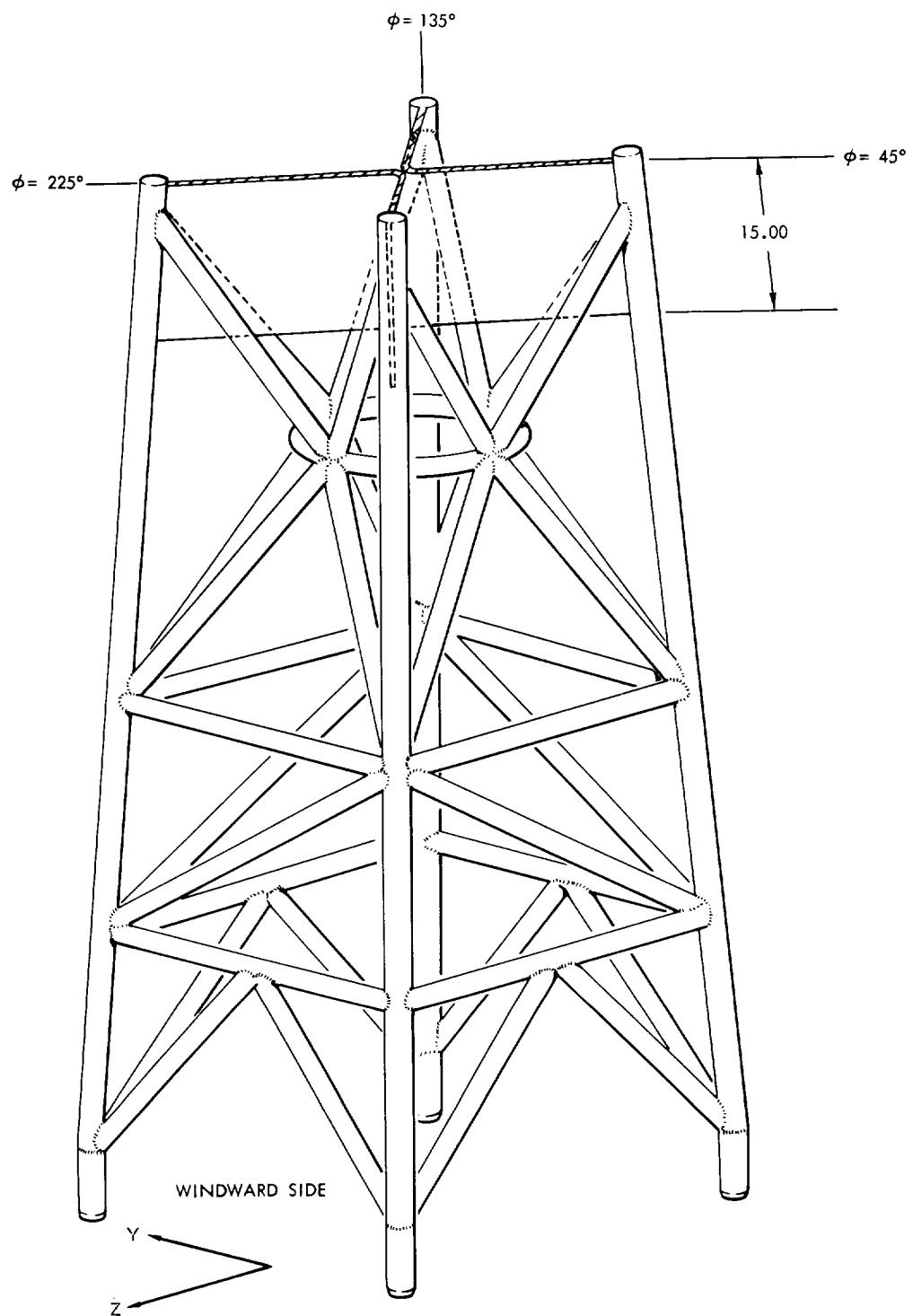
ESCAPE TOWER STRUCTURE T<sub>38</sub>

DRAWING NOT TO SCALE

FULL-SCALE DIMENSIONS IN INCHES



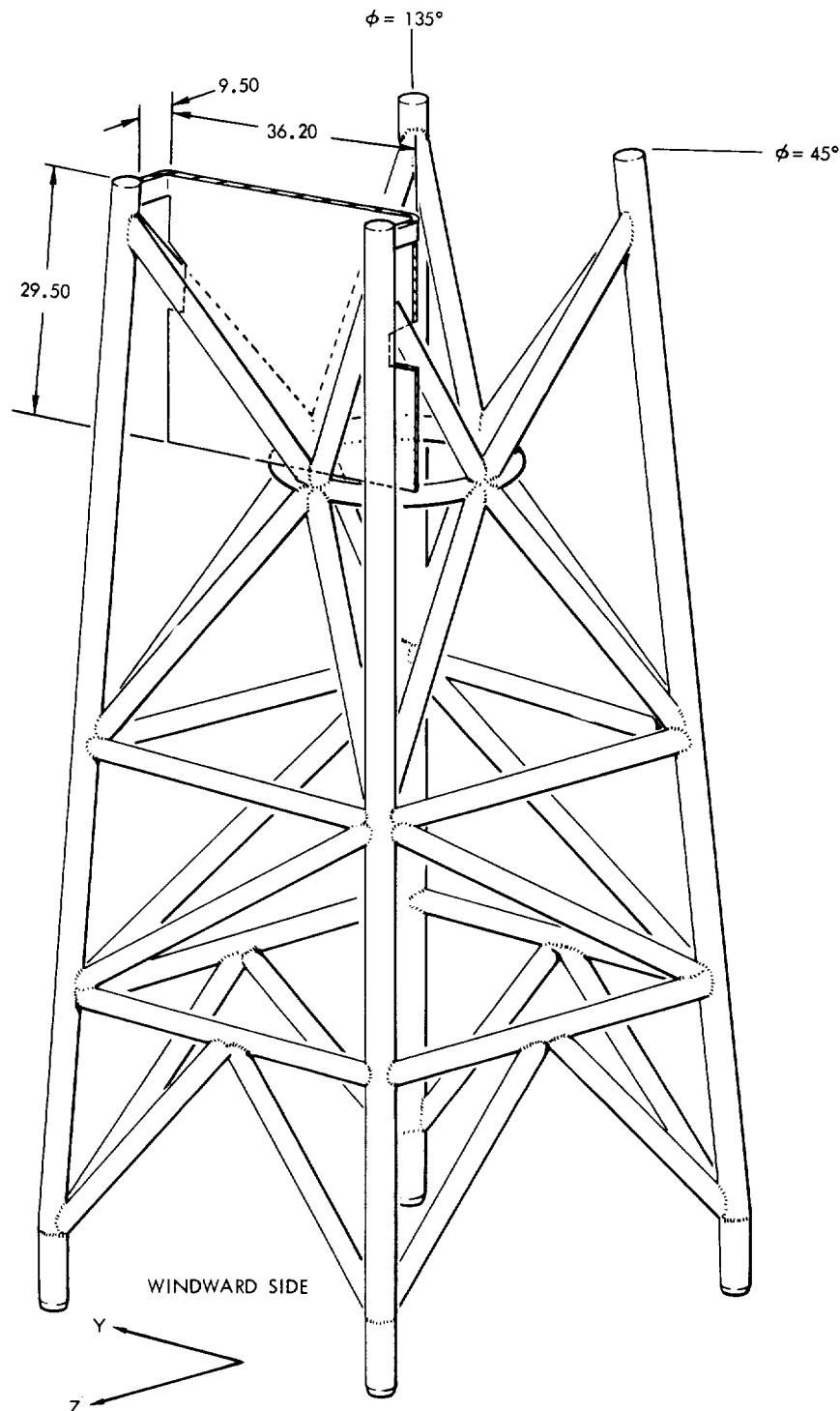




FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

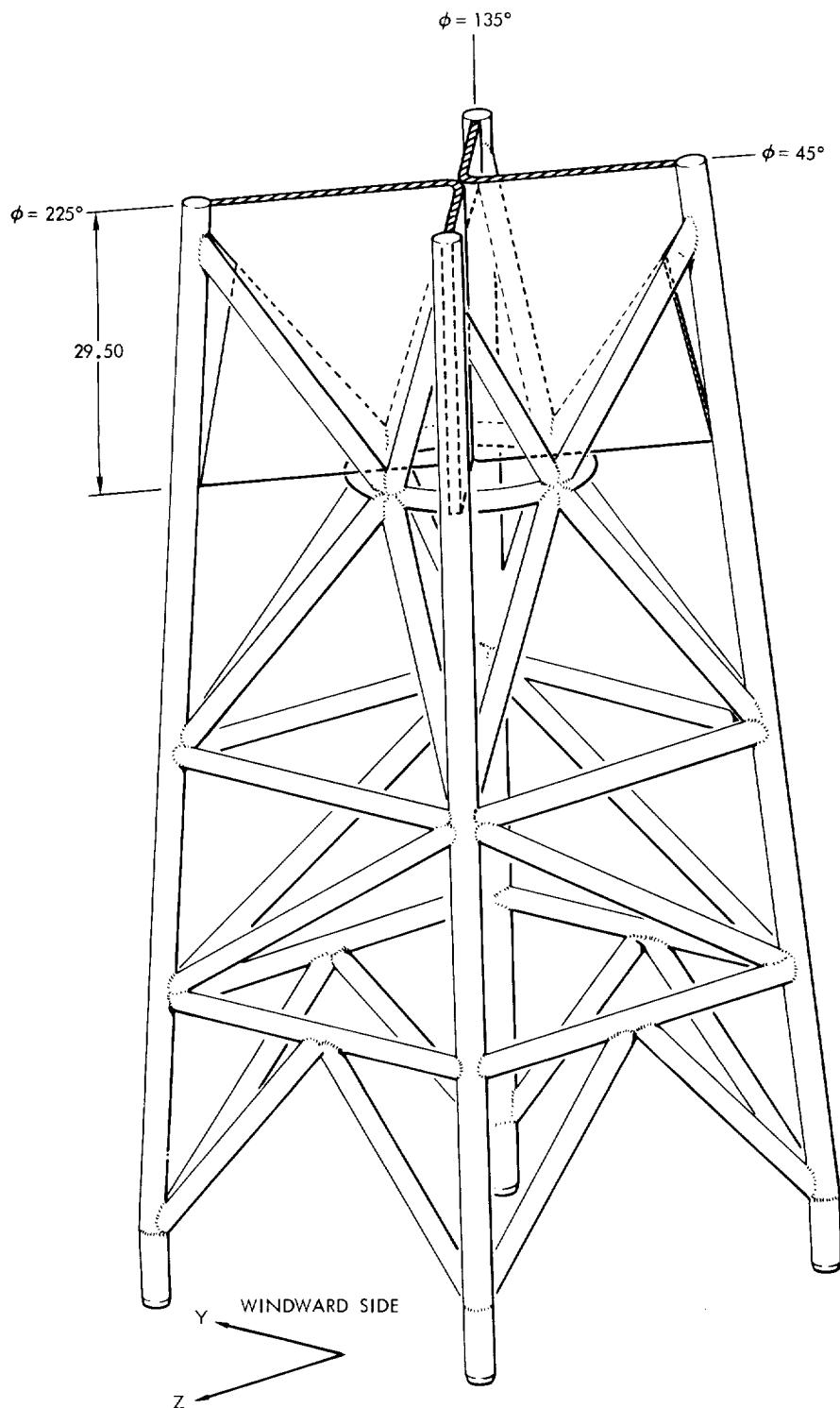
ESCAPE TOWER STRUCTURE T40  
(BASIC TOWER T32 AND PLATES)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

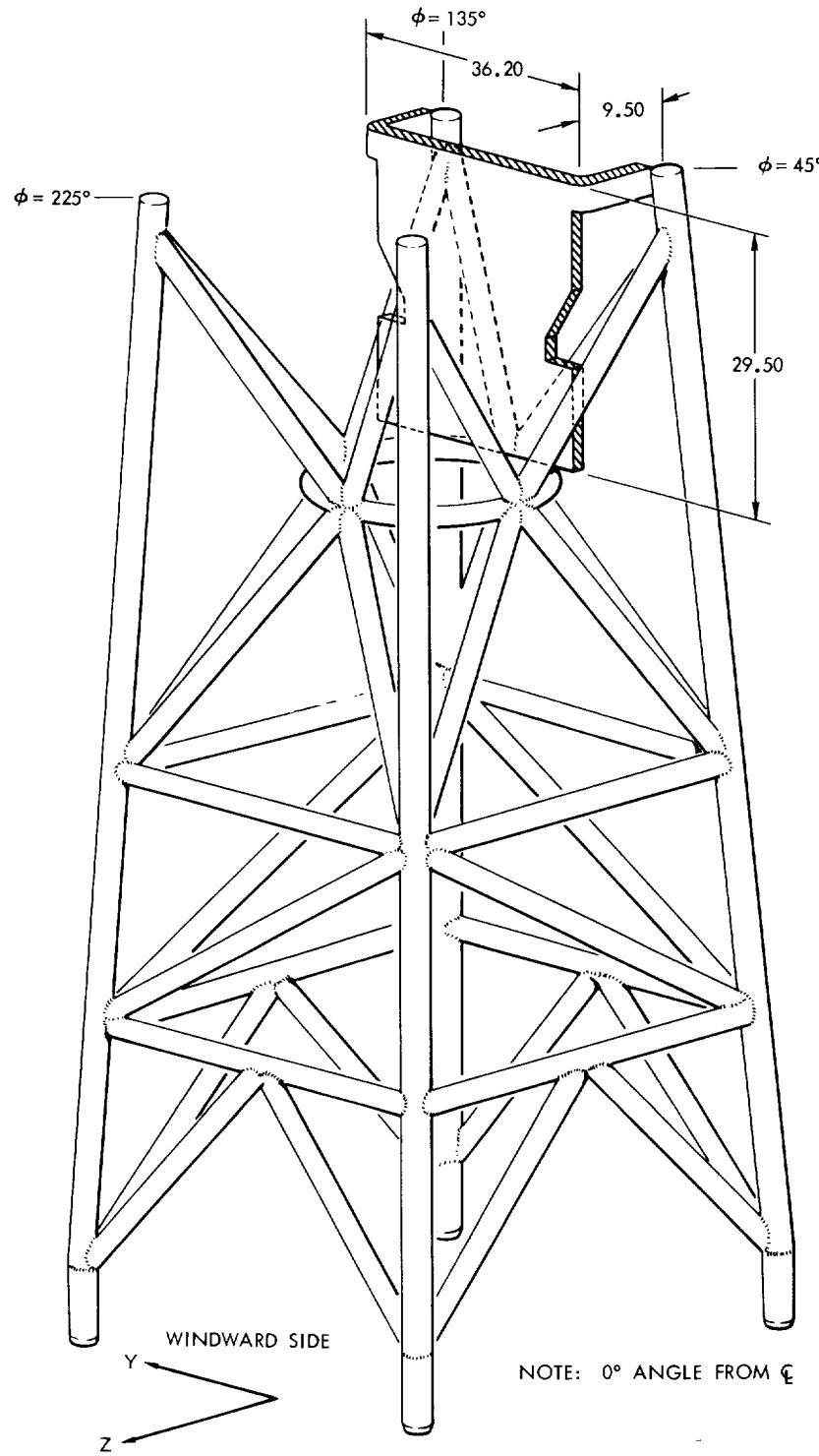
**ESCAPE TOWER STRUCTURE T<sub>41</sub>**  
(BASIC TOWER T<sub>32</sub> AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

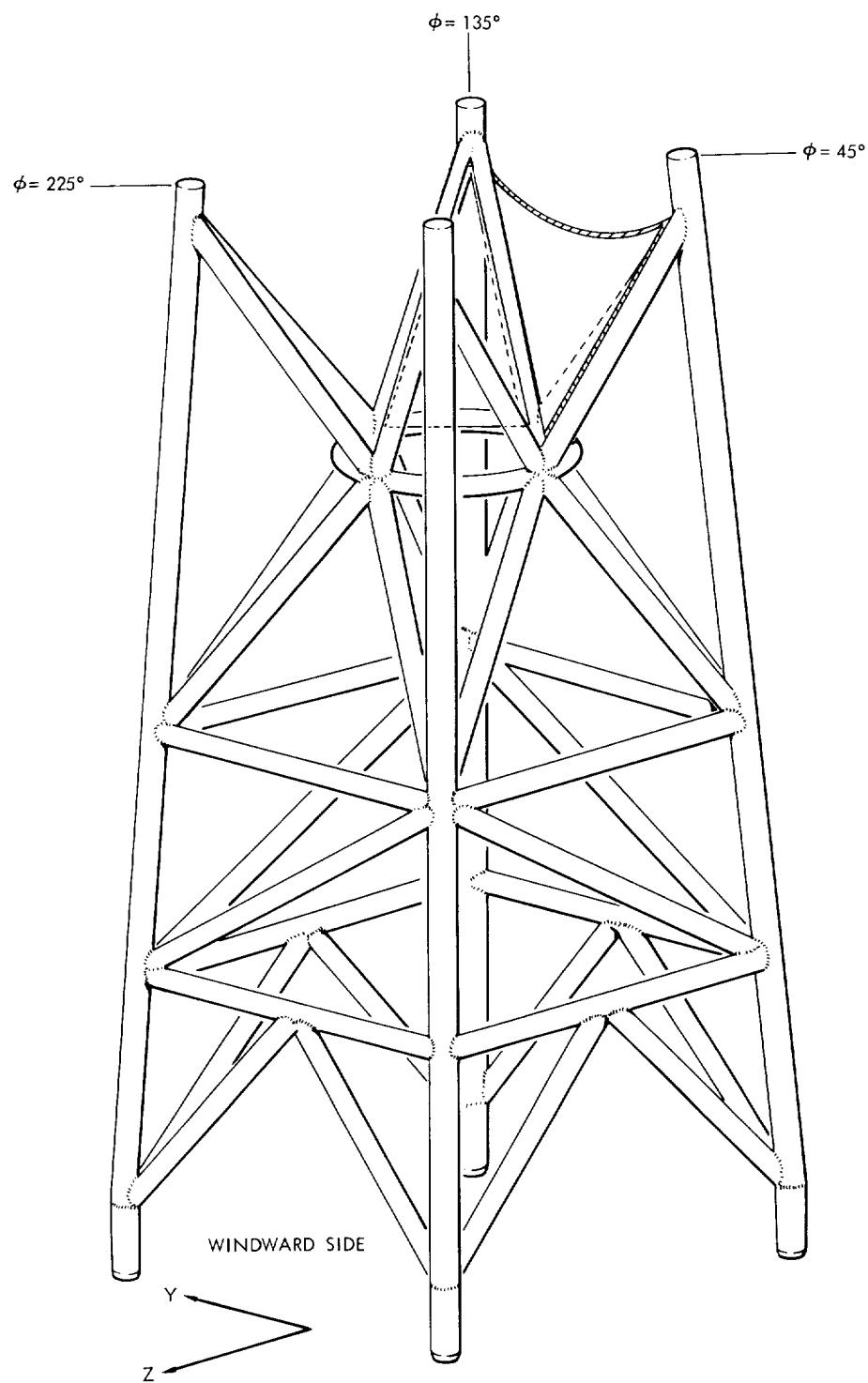
ESCAPE TOWER STRUCTURE T42  
(BASIC TOWER T32 AND PLATES)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

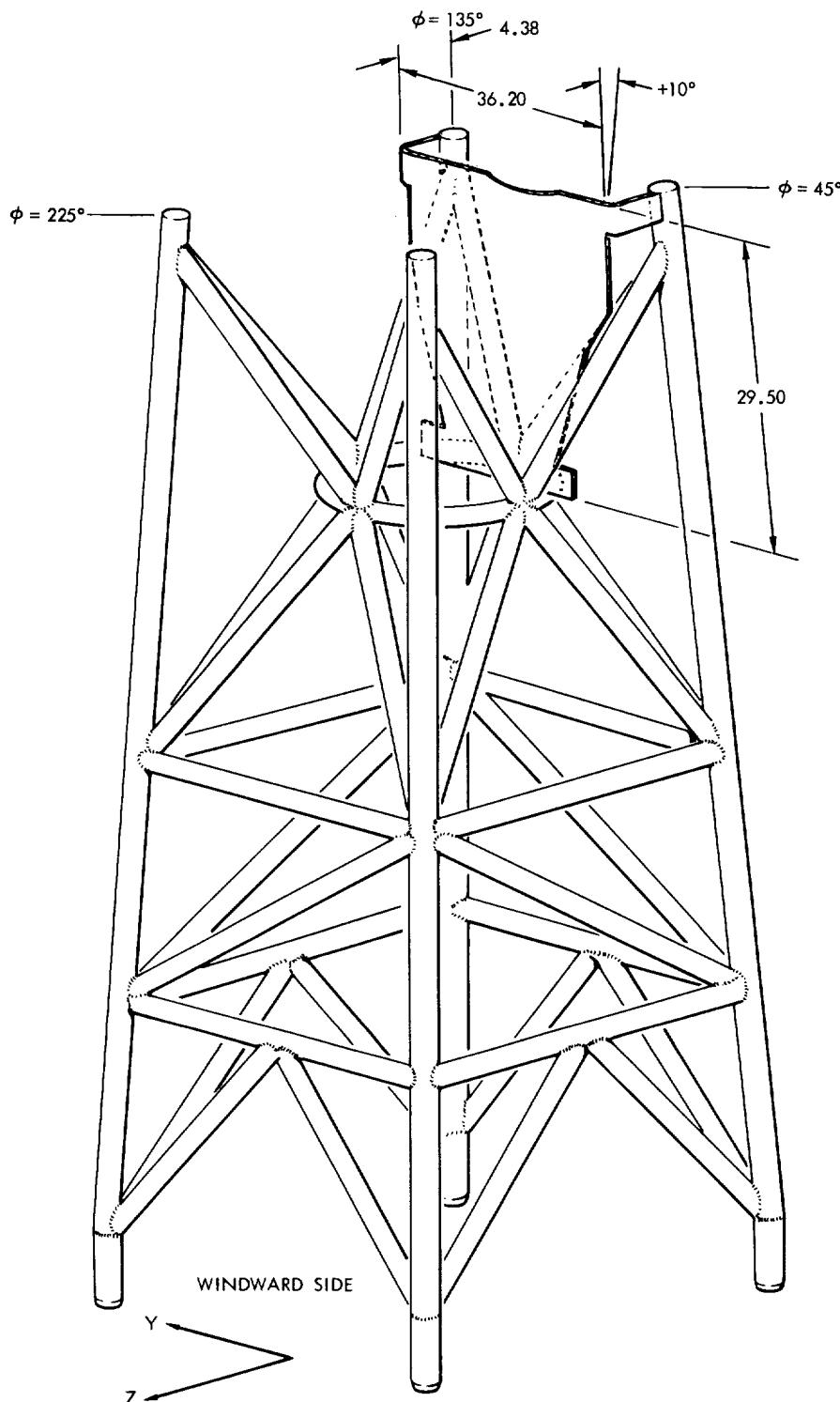
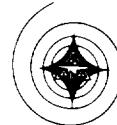
ESCAPE TOWER STRUCTURE T<sub>43</sub>  
(BASIC TOWER T<sub>32</sub> AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

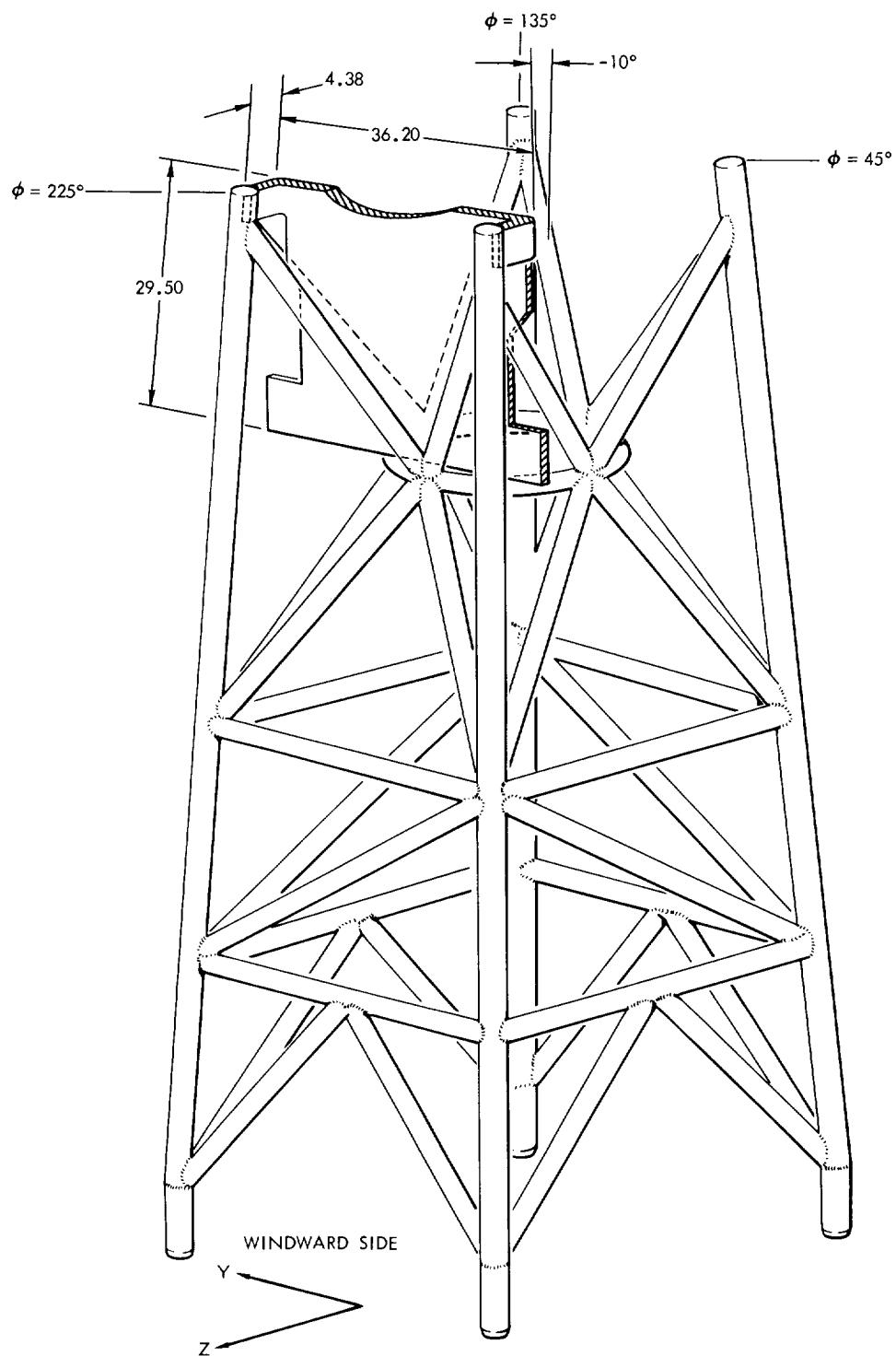
ESCAPE TOWER STRUCTURE T<sub>44</sub>  
(BASIC TOWER T<sub>32</sub> AND PLATES)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

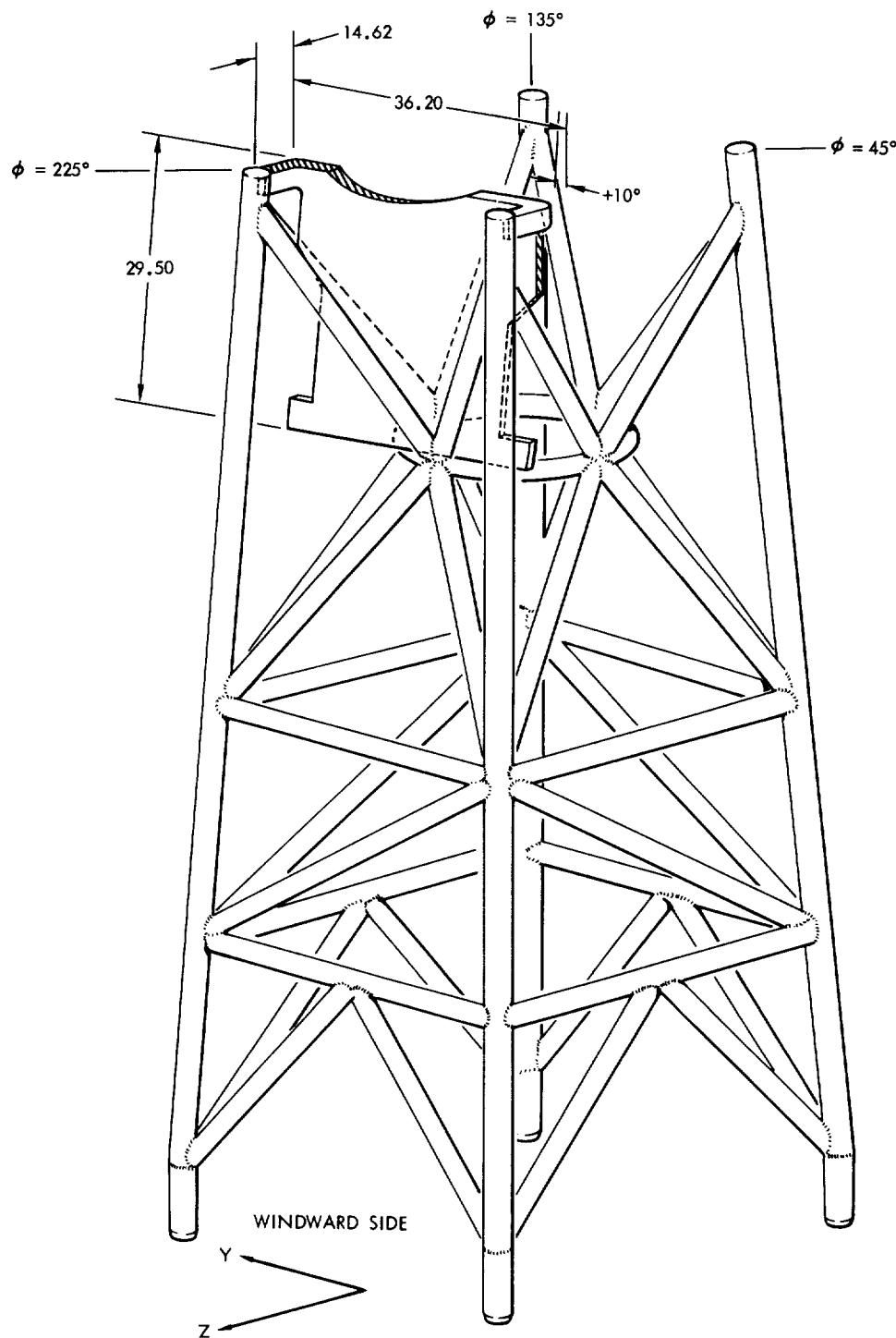
ESCAPE TOWER STRUCTURE T<sub>45</sub>  
(BASIC TOWER T<sub>32</sub> AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

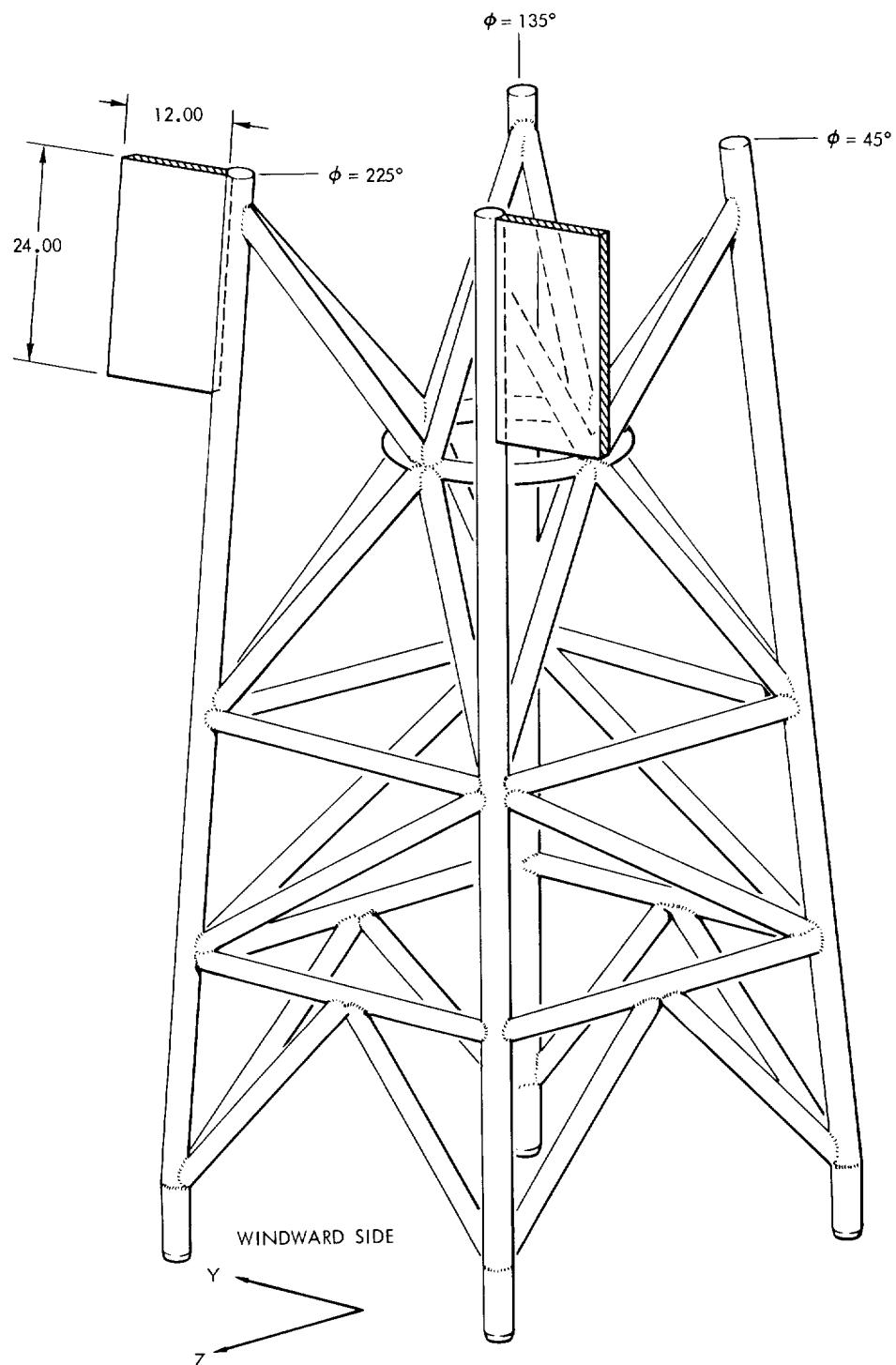
ESCAPE TOWER STRUCTURE T<sub>46</sub>  
(BASIC TOWER T<sub>32</sub> AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

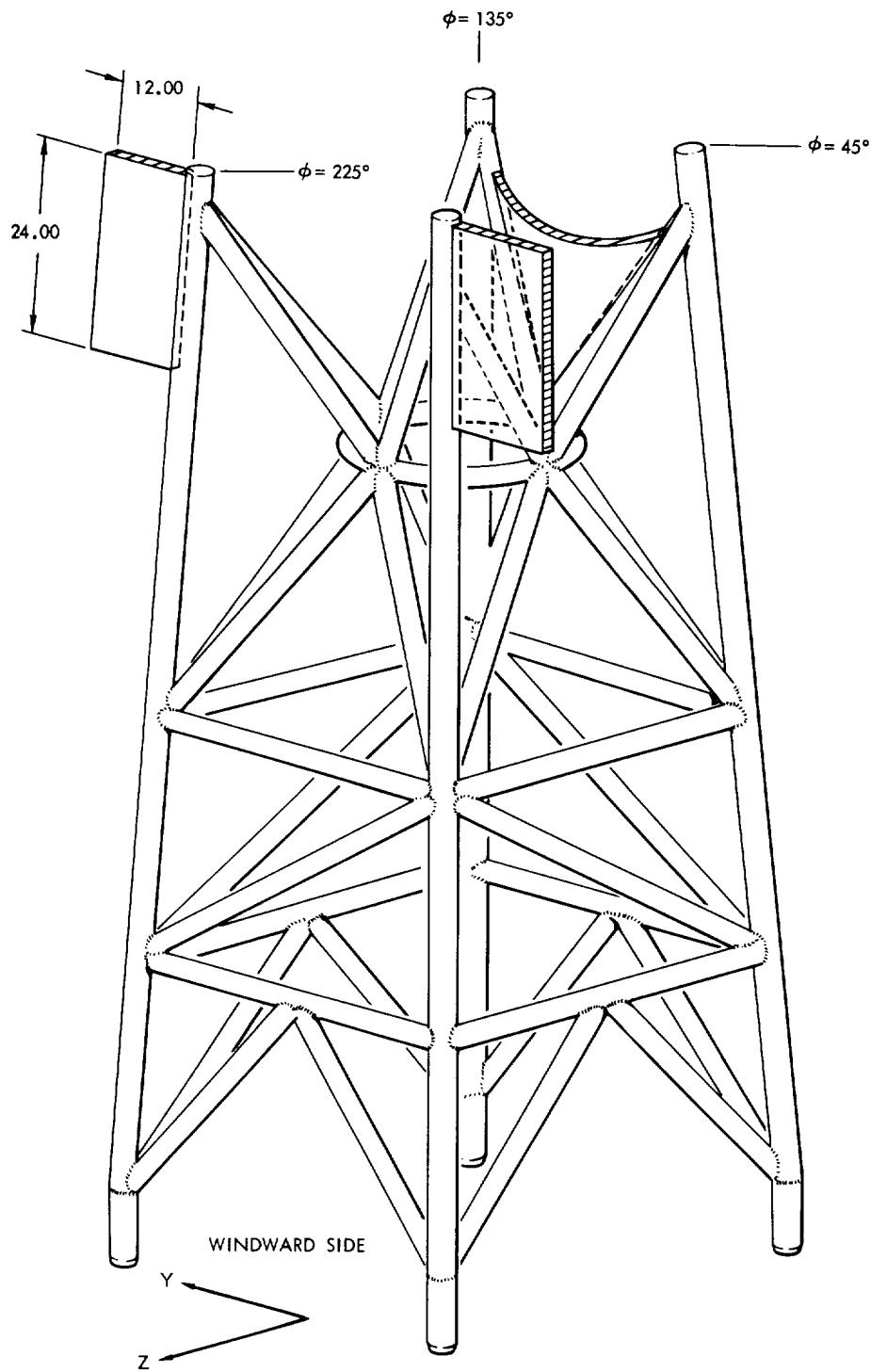
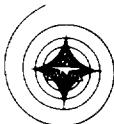
**ESCAPE TOWER STRUCTURE T47  
(BASIC TOWER T32 AND PLATE)**



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

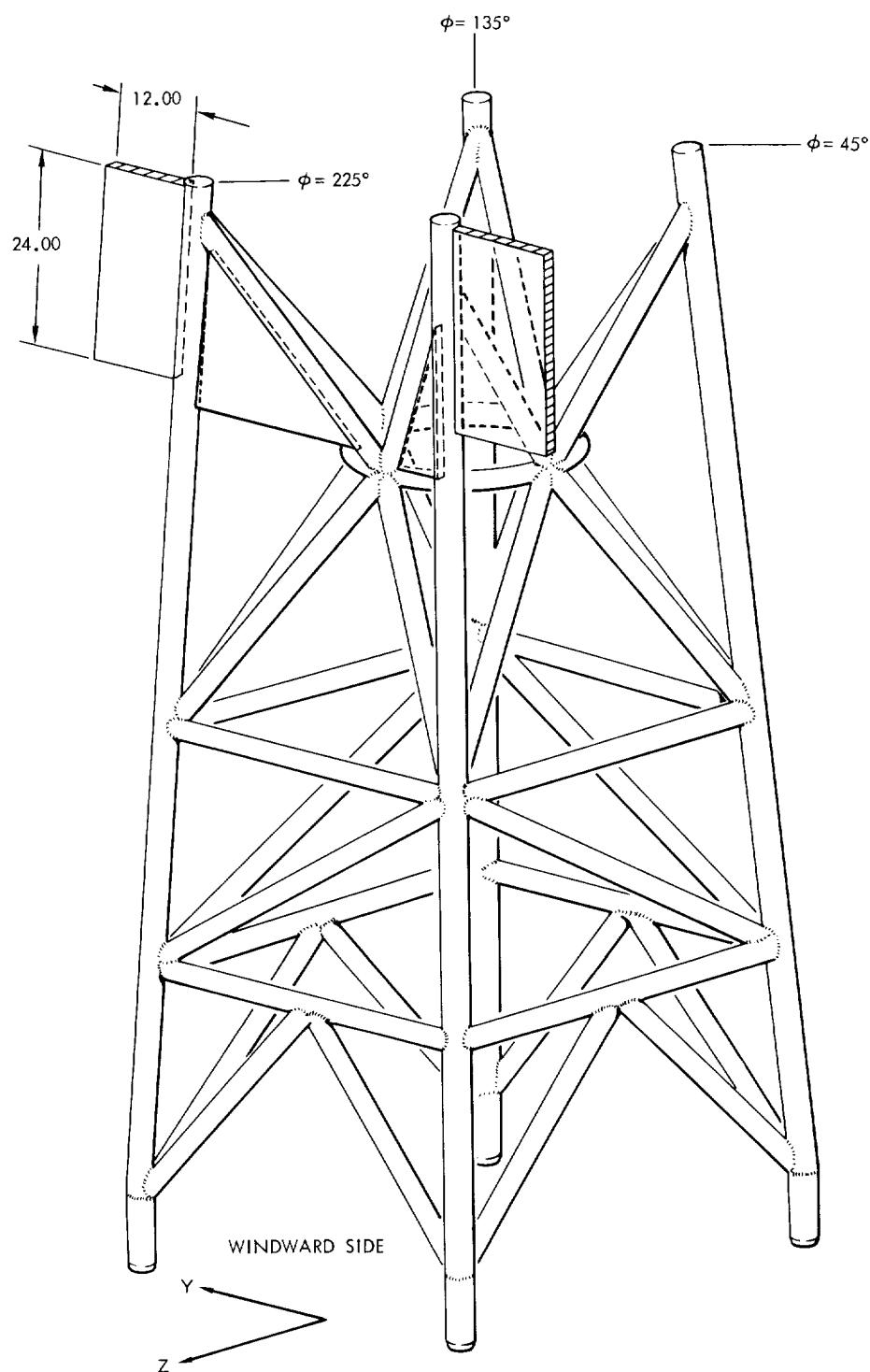
ESCAPE TOWER STRUCTURE T48  
(BASIC TOWER T32 AND PLATES)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

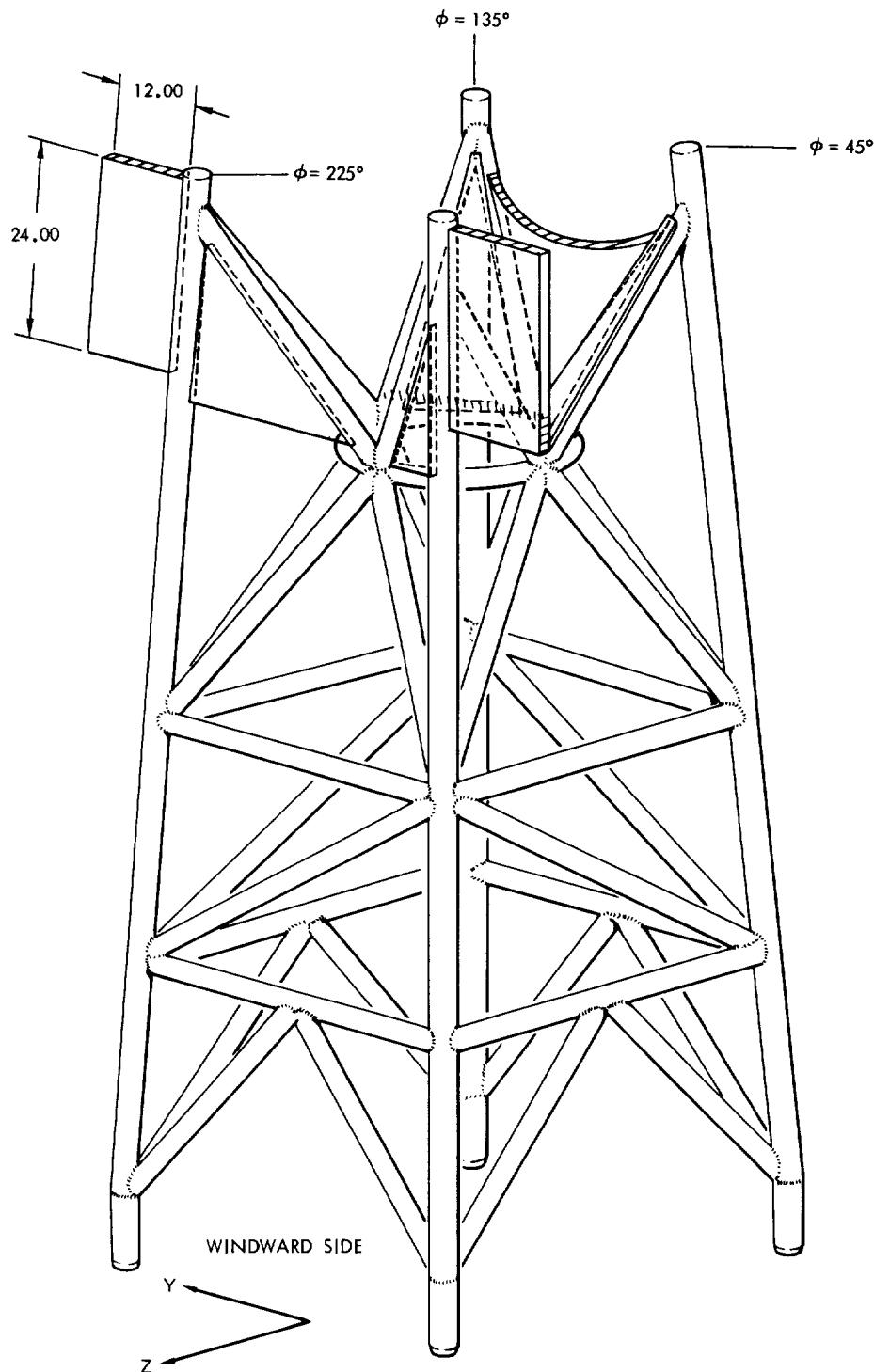
**ESCAPE TOWER STRUCTURE T49**  
(BASIC TOWER T32 AND PLATES)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

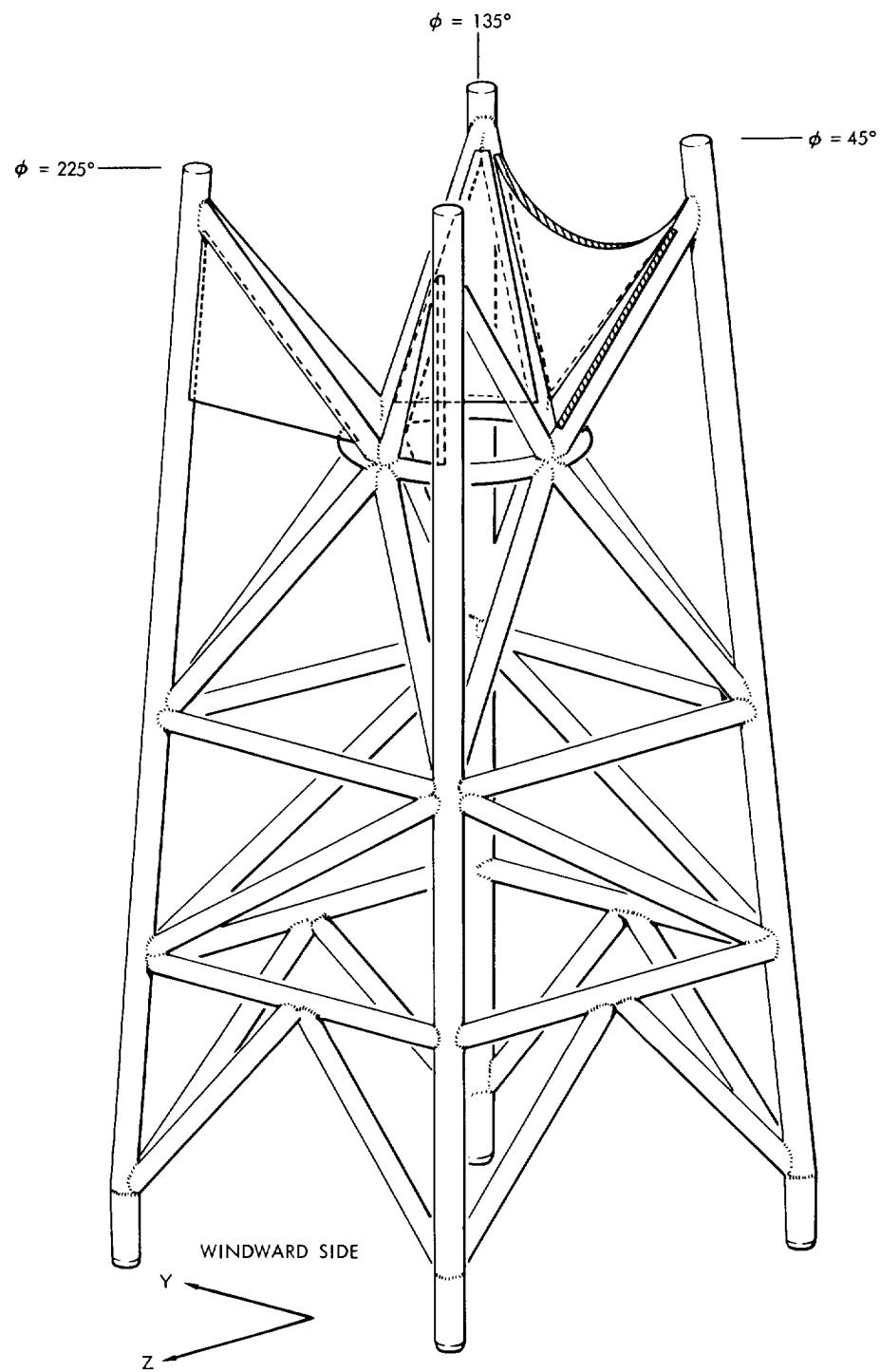
ESCAPE TOWER STRUCTURE T<sub>50</sub>  
(BASIC TOWER T<sub>32</sub> AND PLATES)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

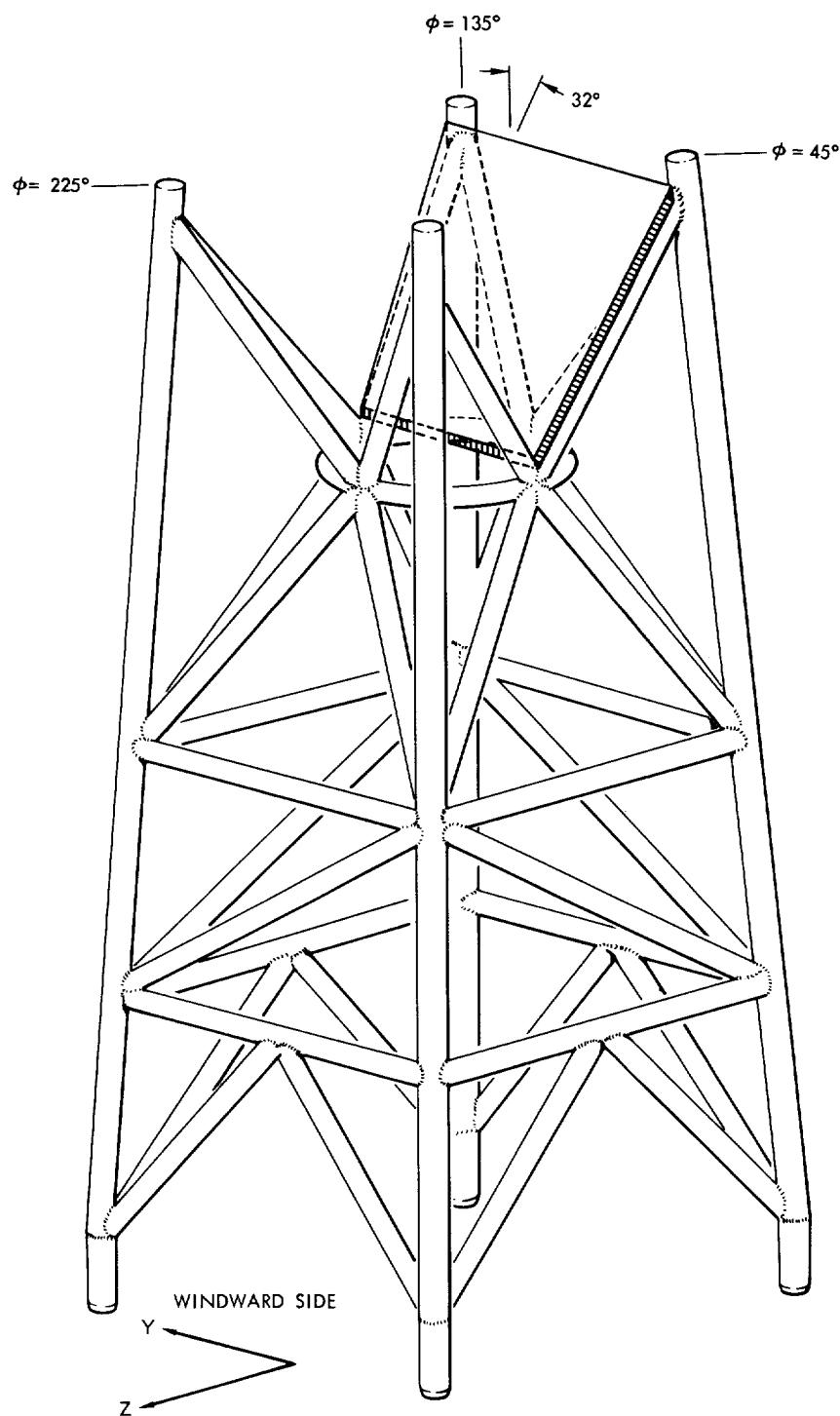
ESCAPE TOWER STRUCTURE T<sub>51</sub>  
(BASIC TOWER T<sub>32</sub> AND PLATES)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

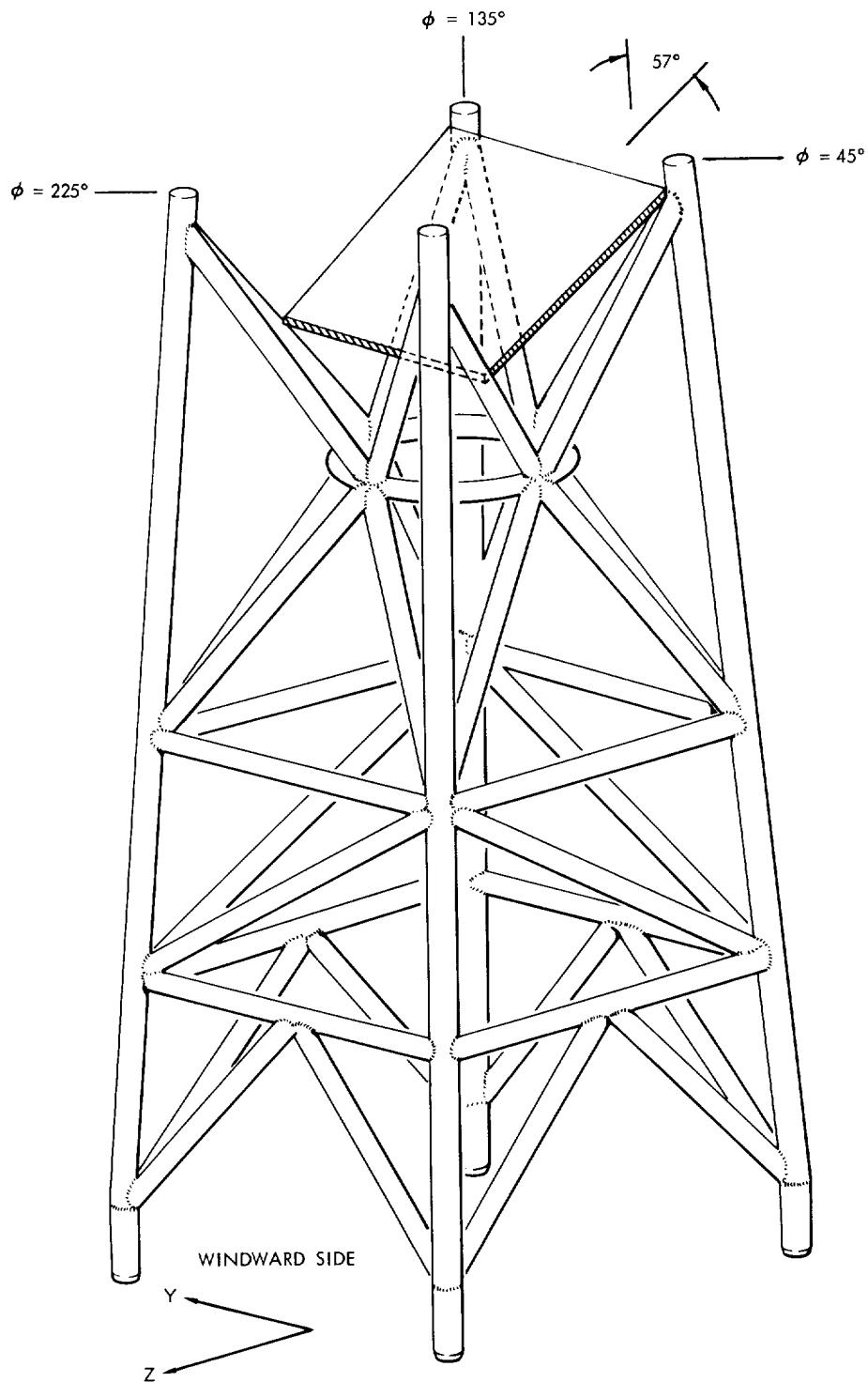
ESCAPE TOWER STRUCTURE T<sub>52</sub>  
(BASIC TOWER T<sub>32</sub> AND PLATES)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

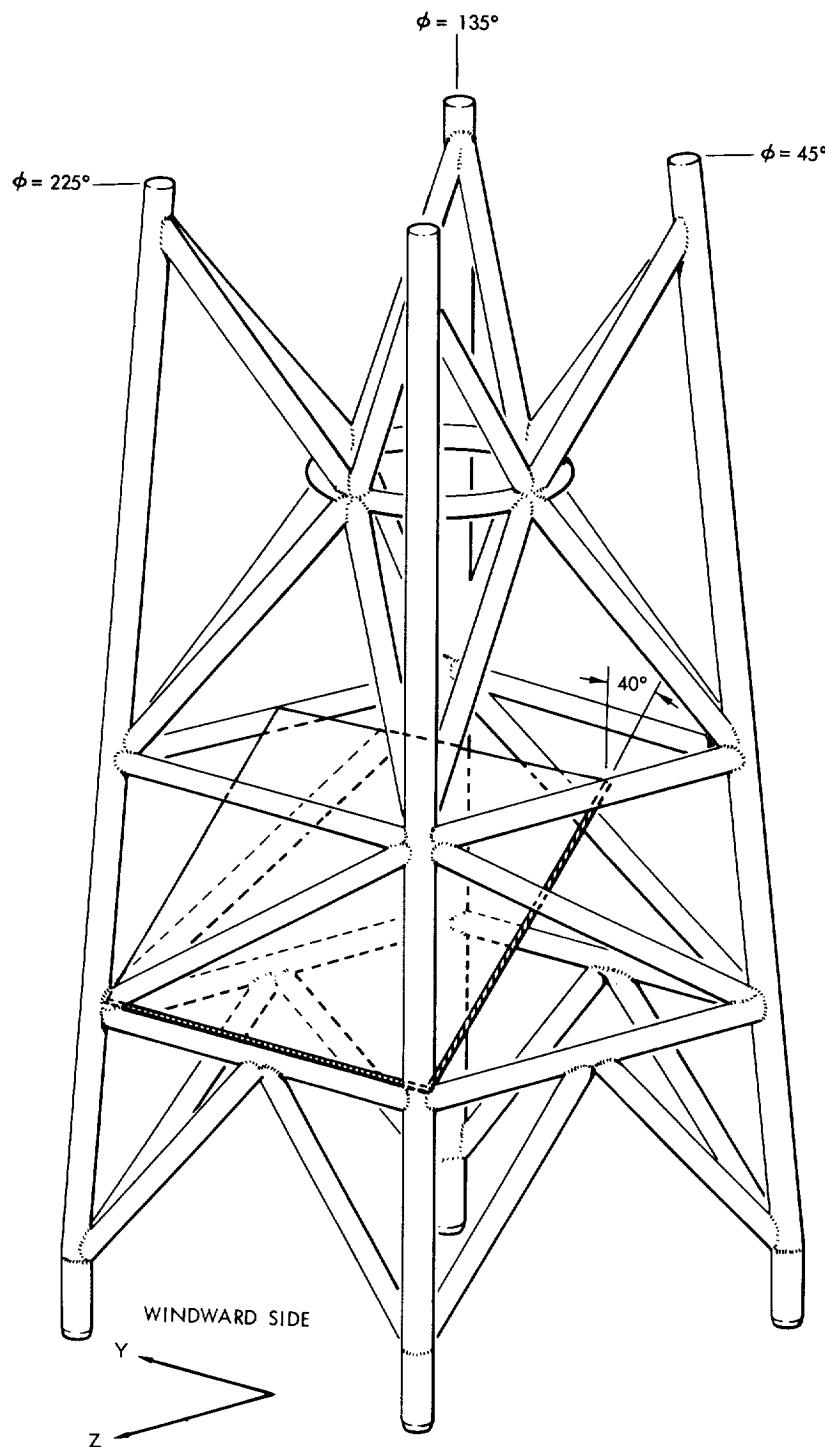
**ESCAPE TOWER STRUCTURE T<sub>53</sub>**  
(BASIC TOWER T<sub>32</sub> AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

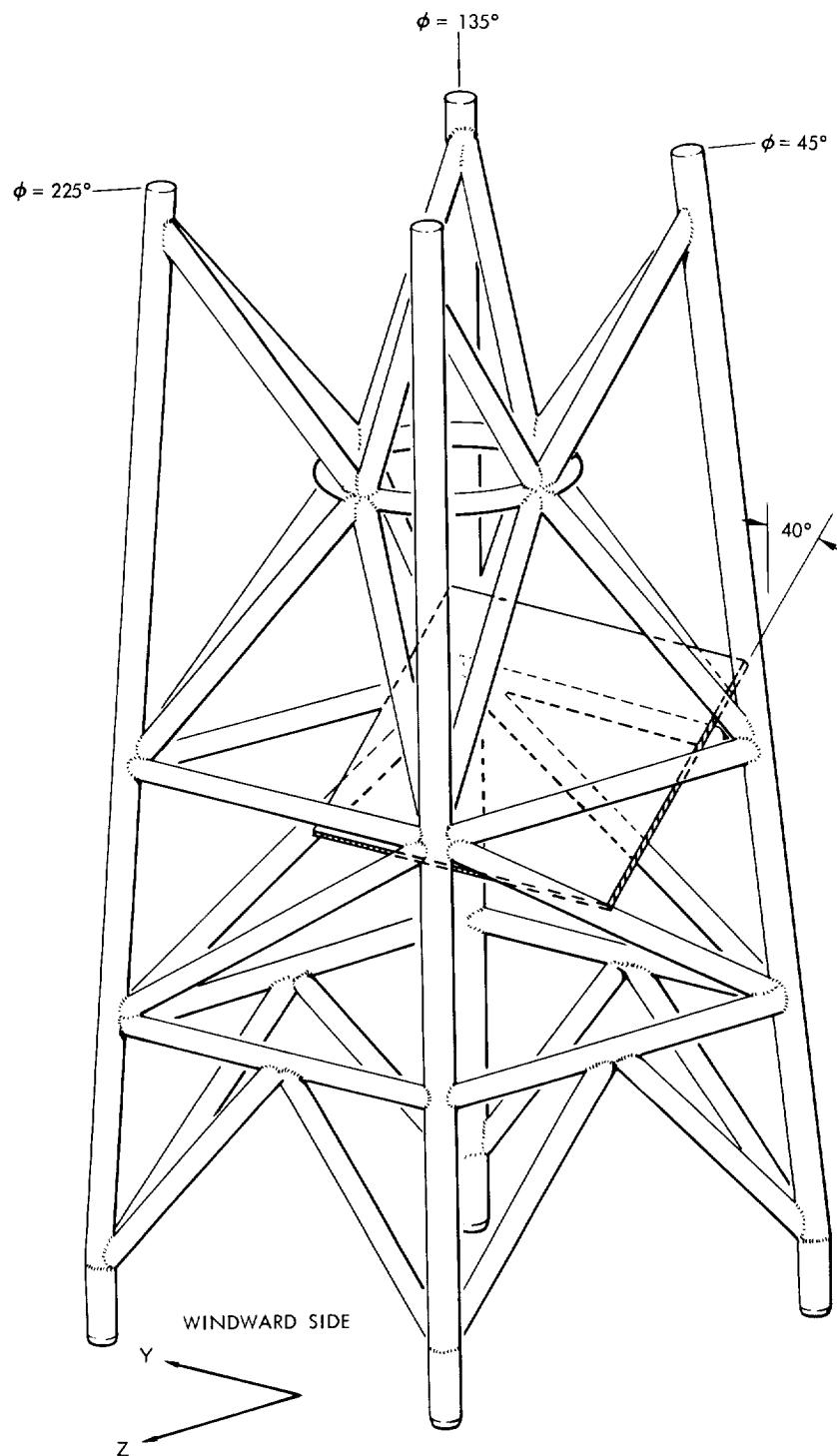
**ESCAPE TOWER STRUCTURE T54**  
(BASIC TOWER T32 AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

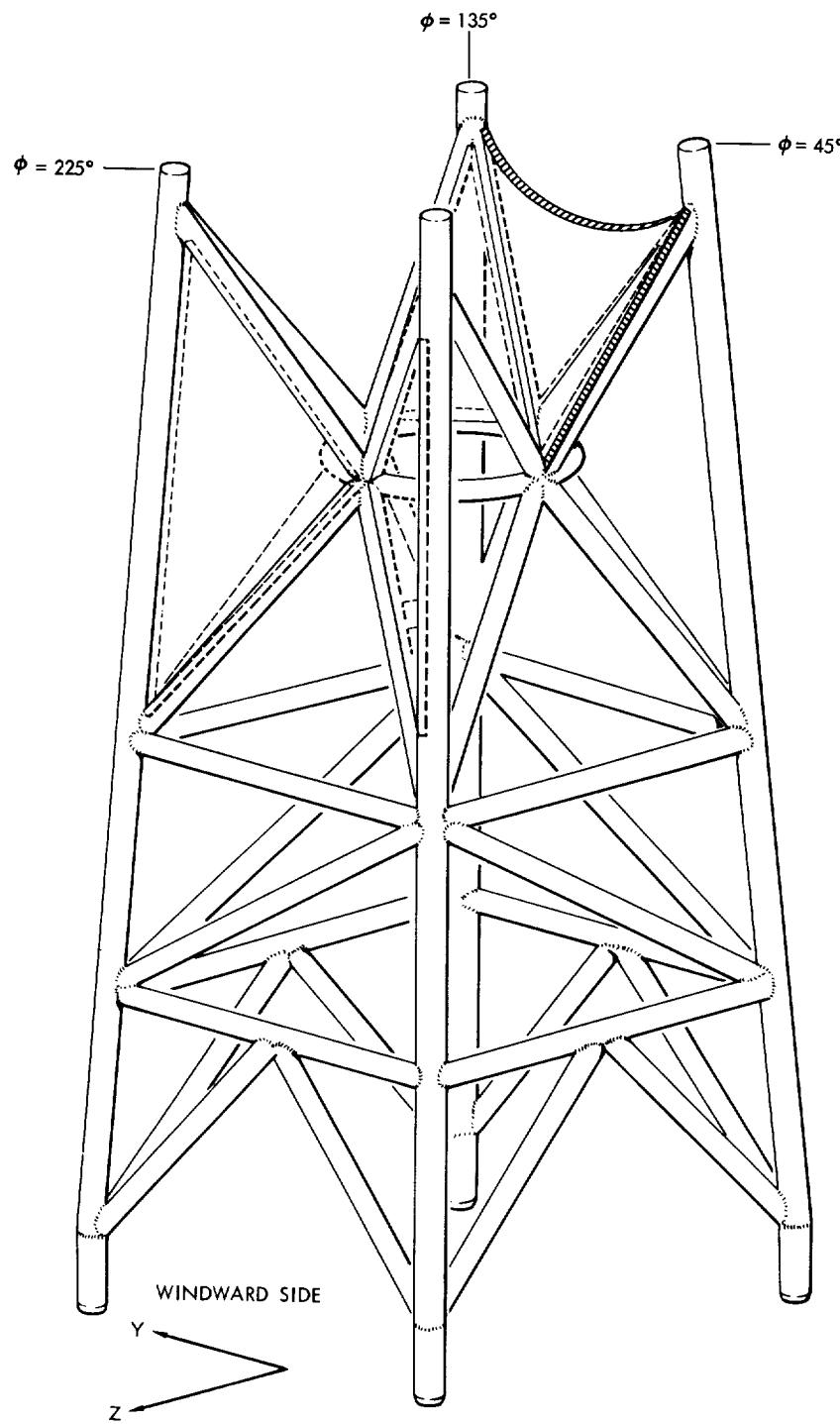
**ESCAPE TOWER STRUCTURE T<sub>55</sub>**  
(BASIC TOWER T<sub>32</sub> AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T56  
(BASIC TOWER T32 AND PLATE)



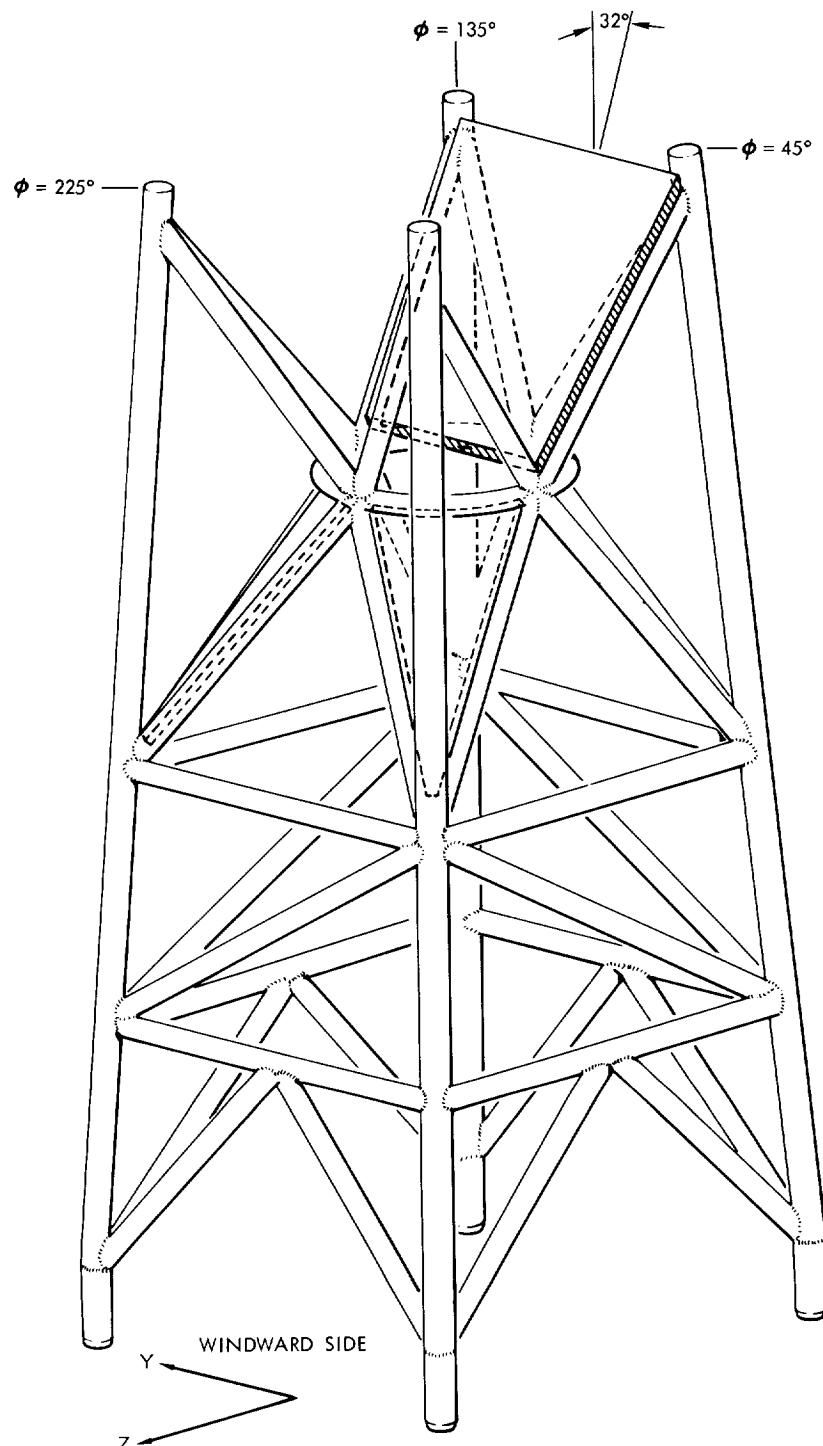
FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

**ESCAPE TOWER STRUCTURE T57**  
(BASIC TOWER T32 AND PLATE)

2-100

SID 63-44



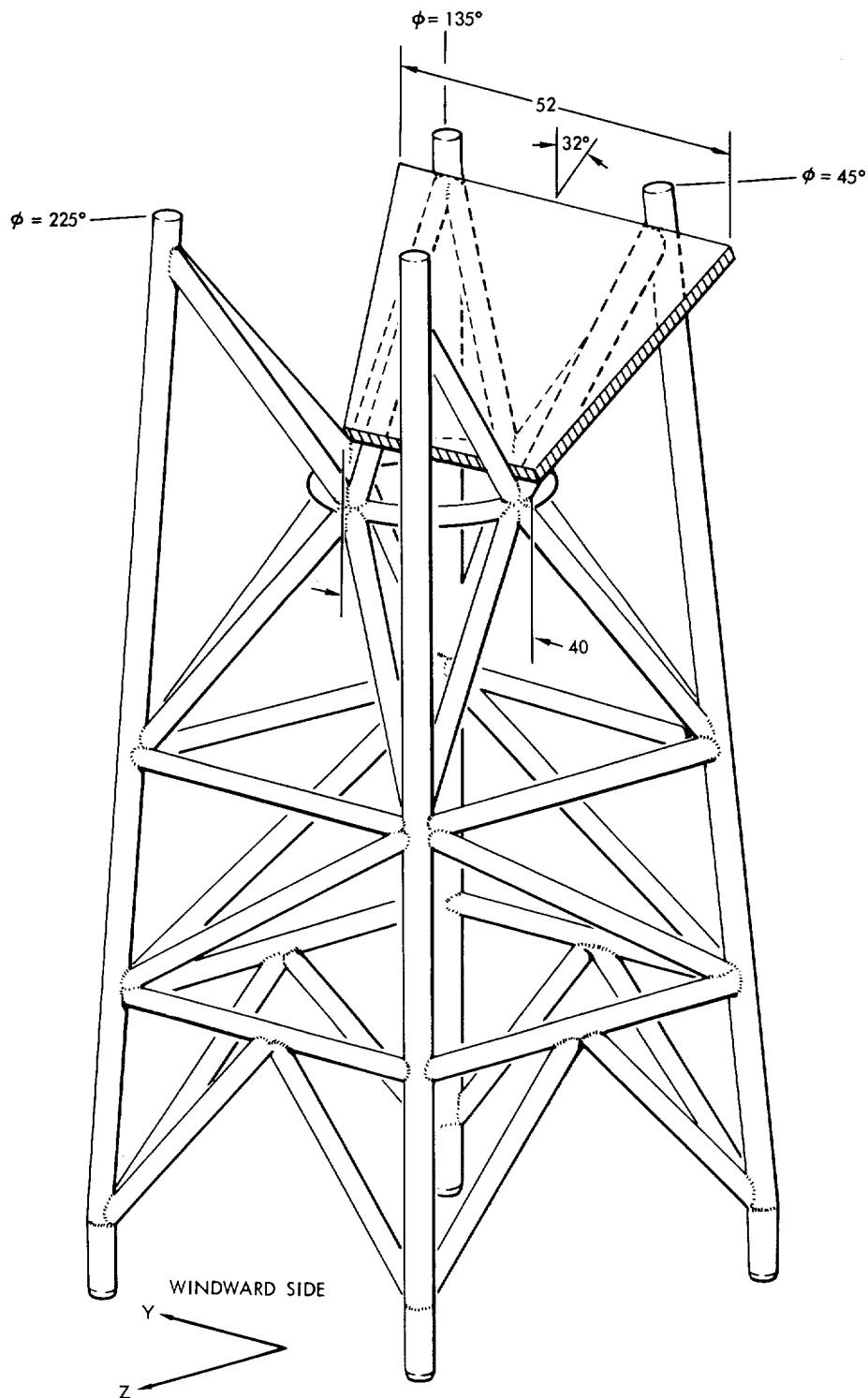
FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T58  
(BASIC TOWER T32 AND PLATES)

2-101

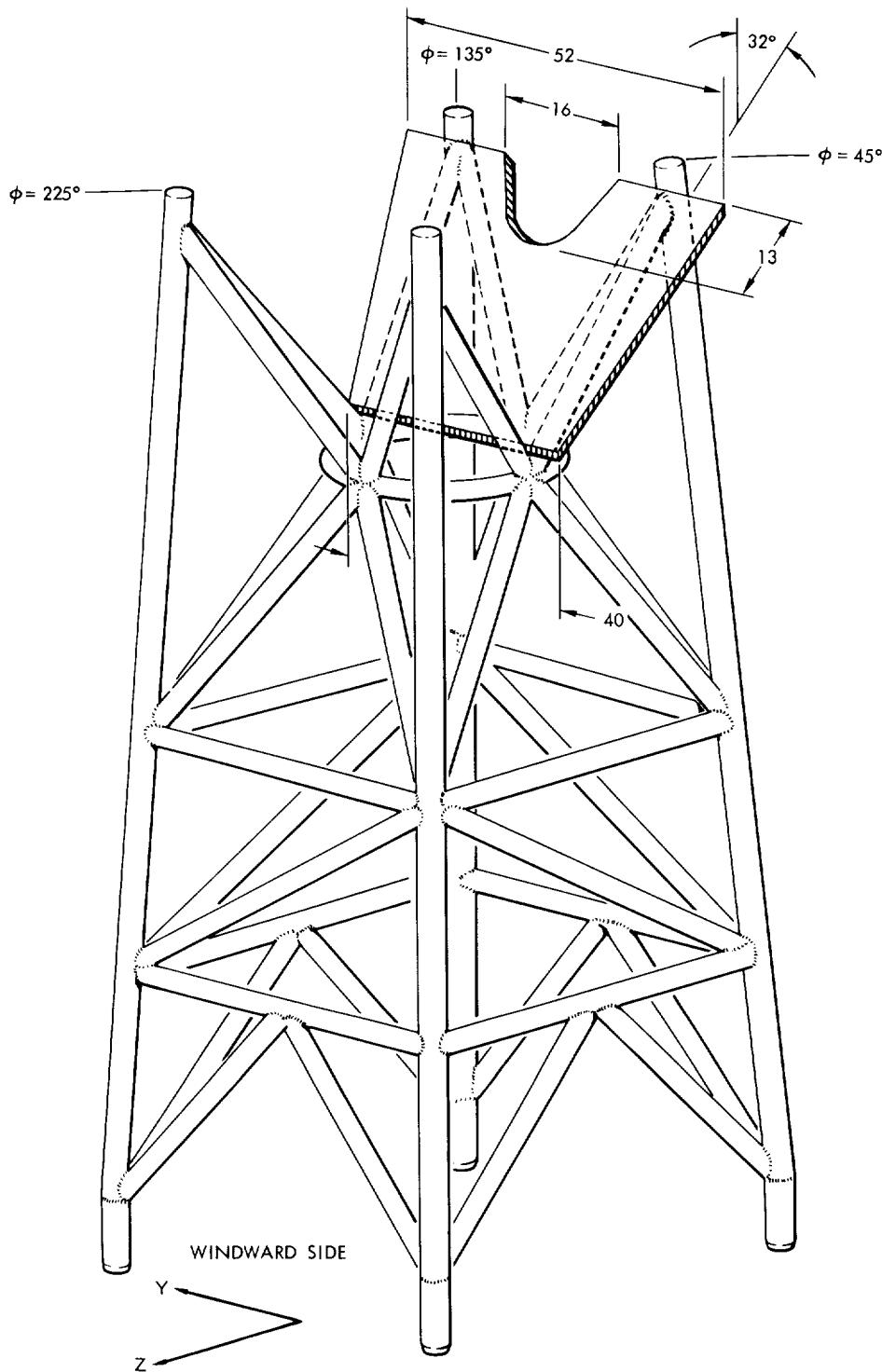
SID 63-44



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

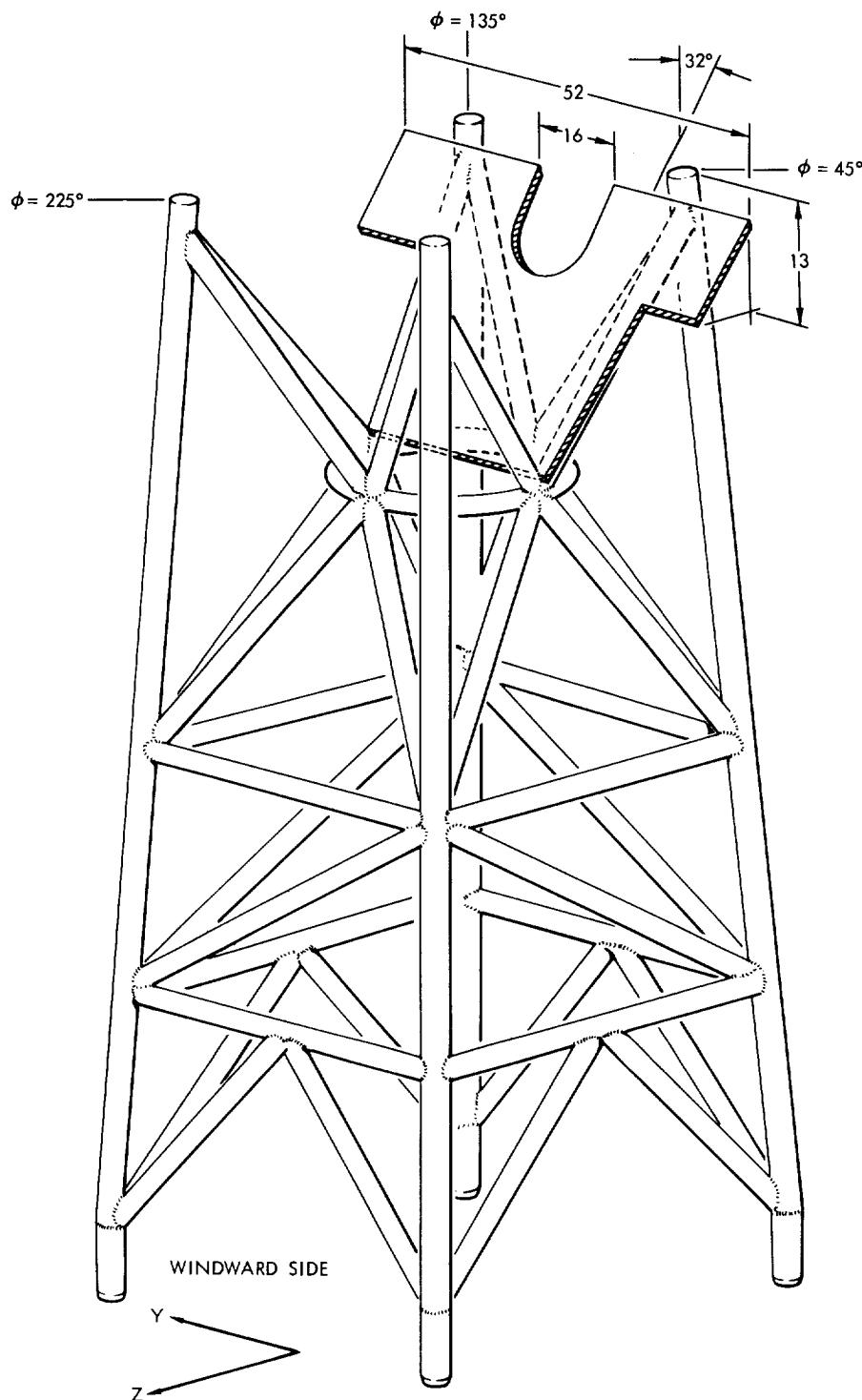
ESCAPE TOWER STRUCTURE T<sub>59</sub>  
(BASIC TOWER T<sub>32</sub> AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

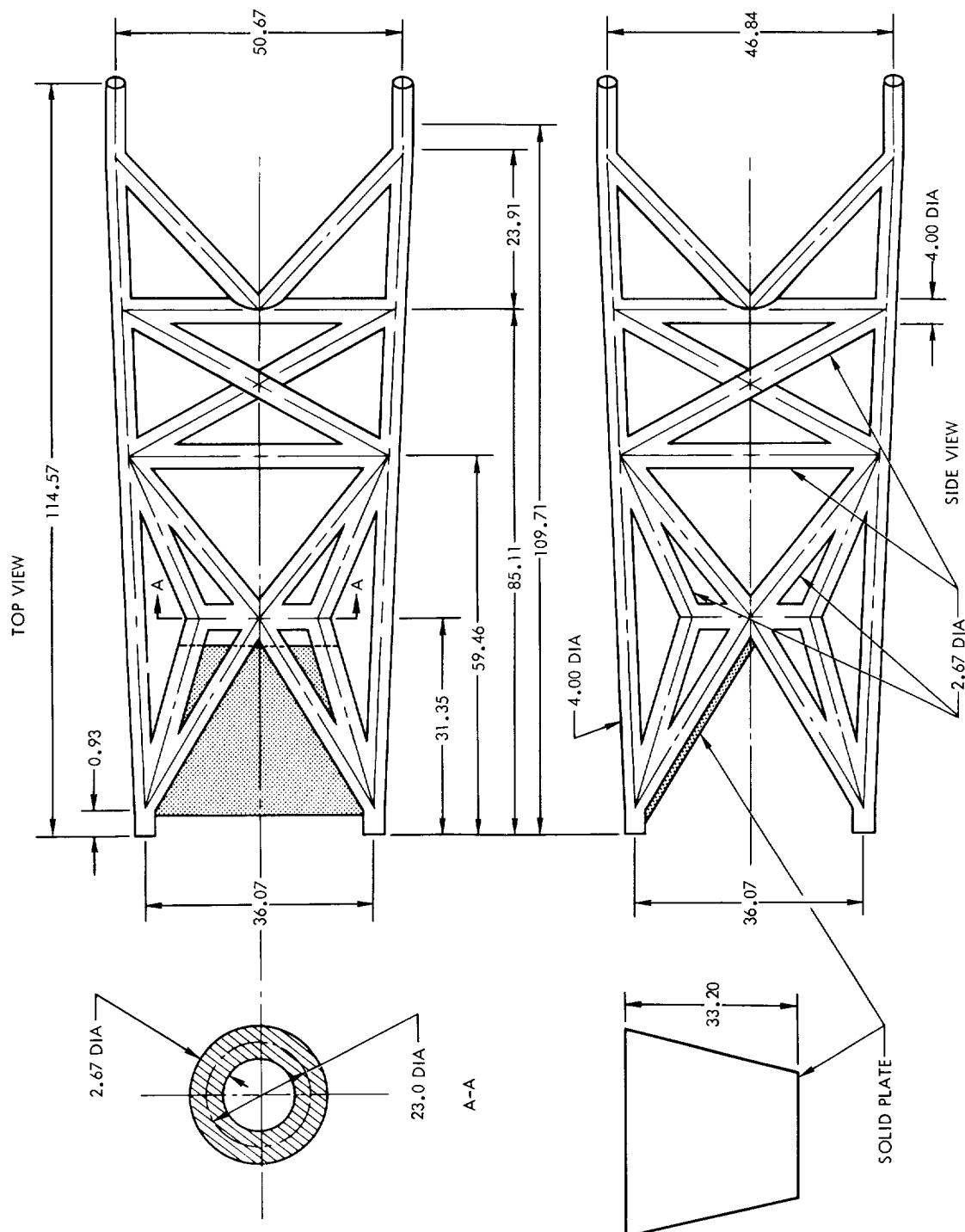
**ESCAPE TOWER STRUCTURE T<sub>60</sub>**  
(BASIC TOWER T<sub>32</sub> AND PLATE)



FULL SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

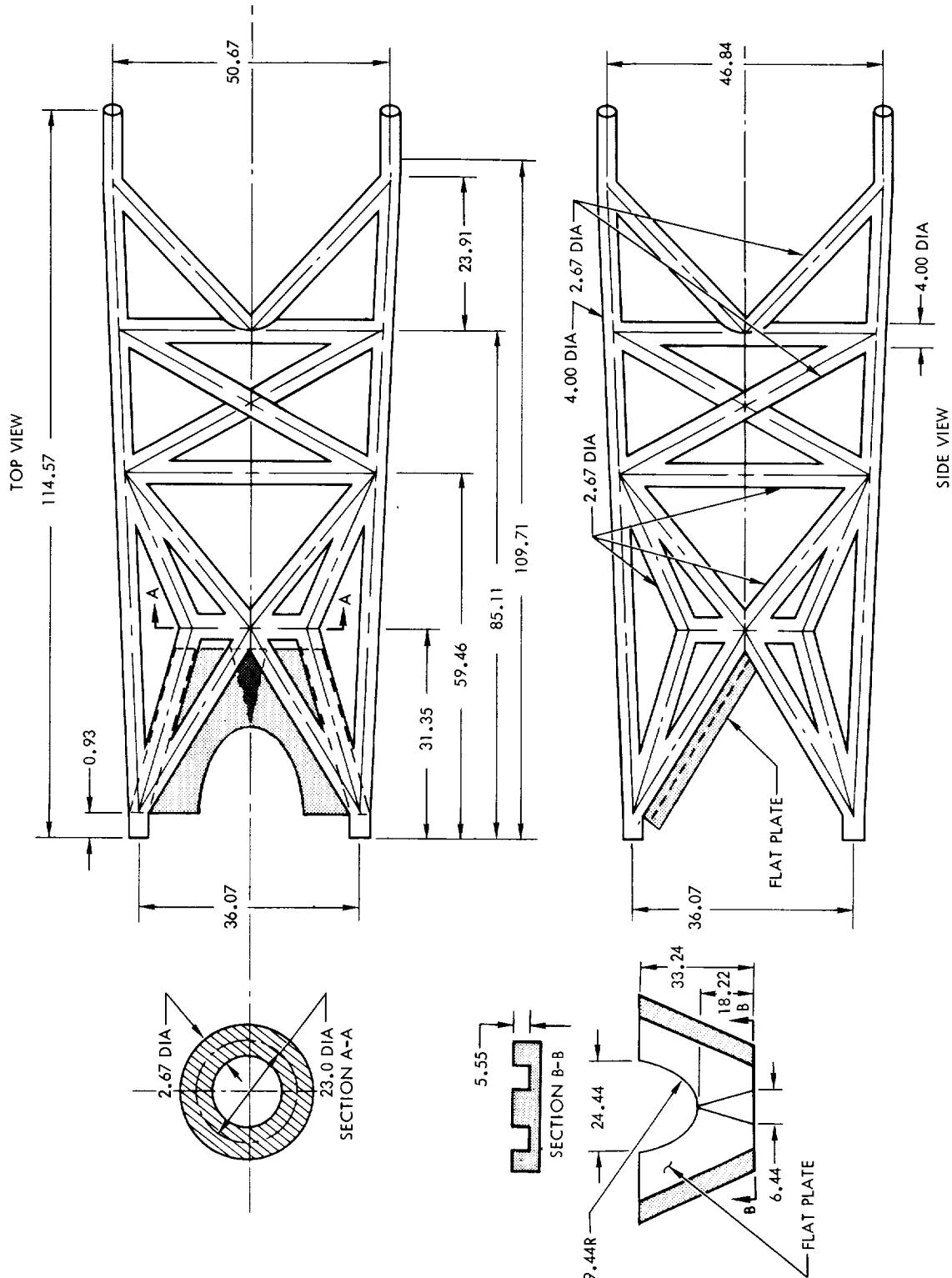
**ESCAPE TOWER STRUCTURE T<sub>61</sub>**  
(BASIC TOWER T<sub>32</sub> AND PLATE)



DRAWING NOT TO SCALE

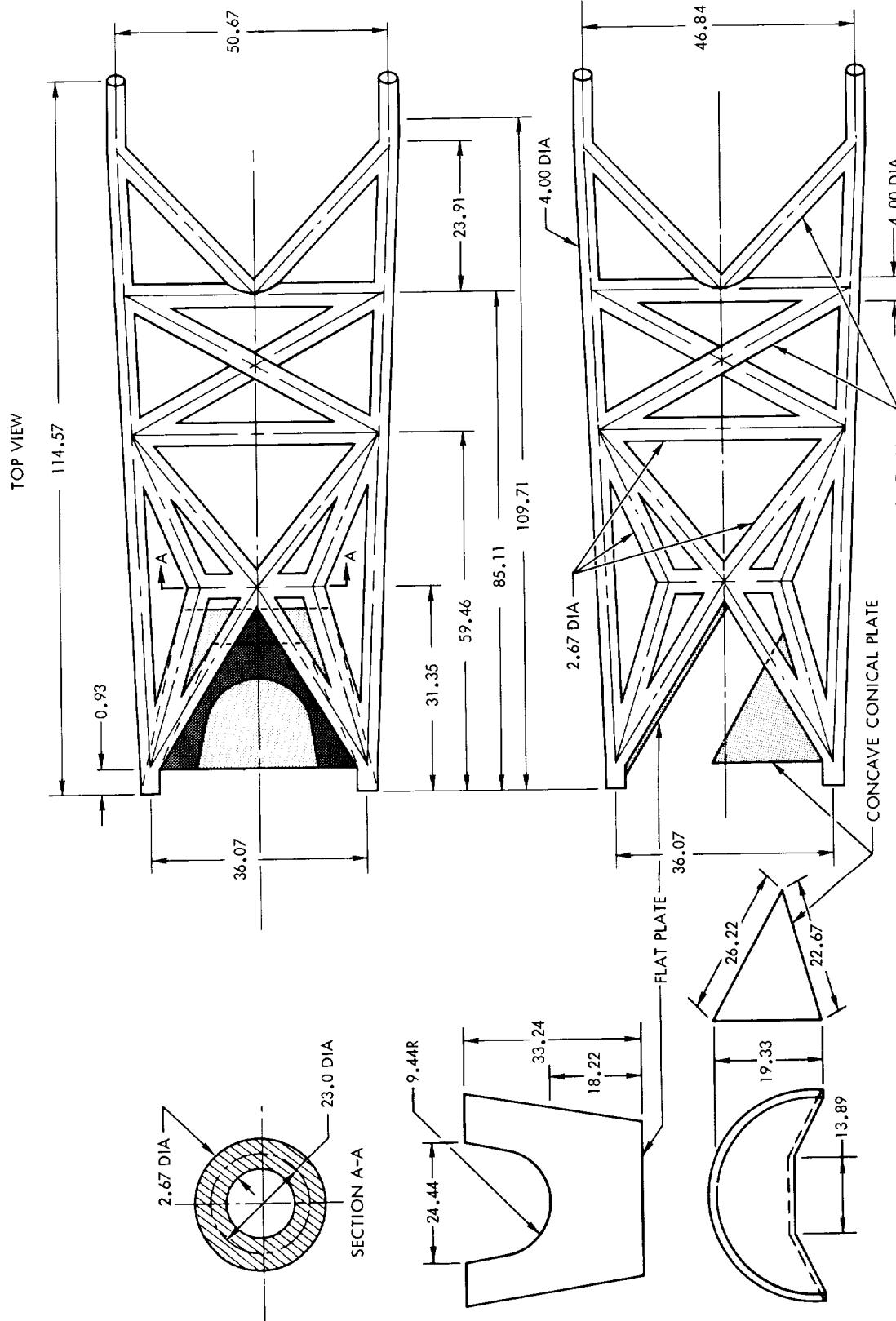
ESCAPE TOWER STRUCTURE T-62

FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T63

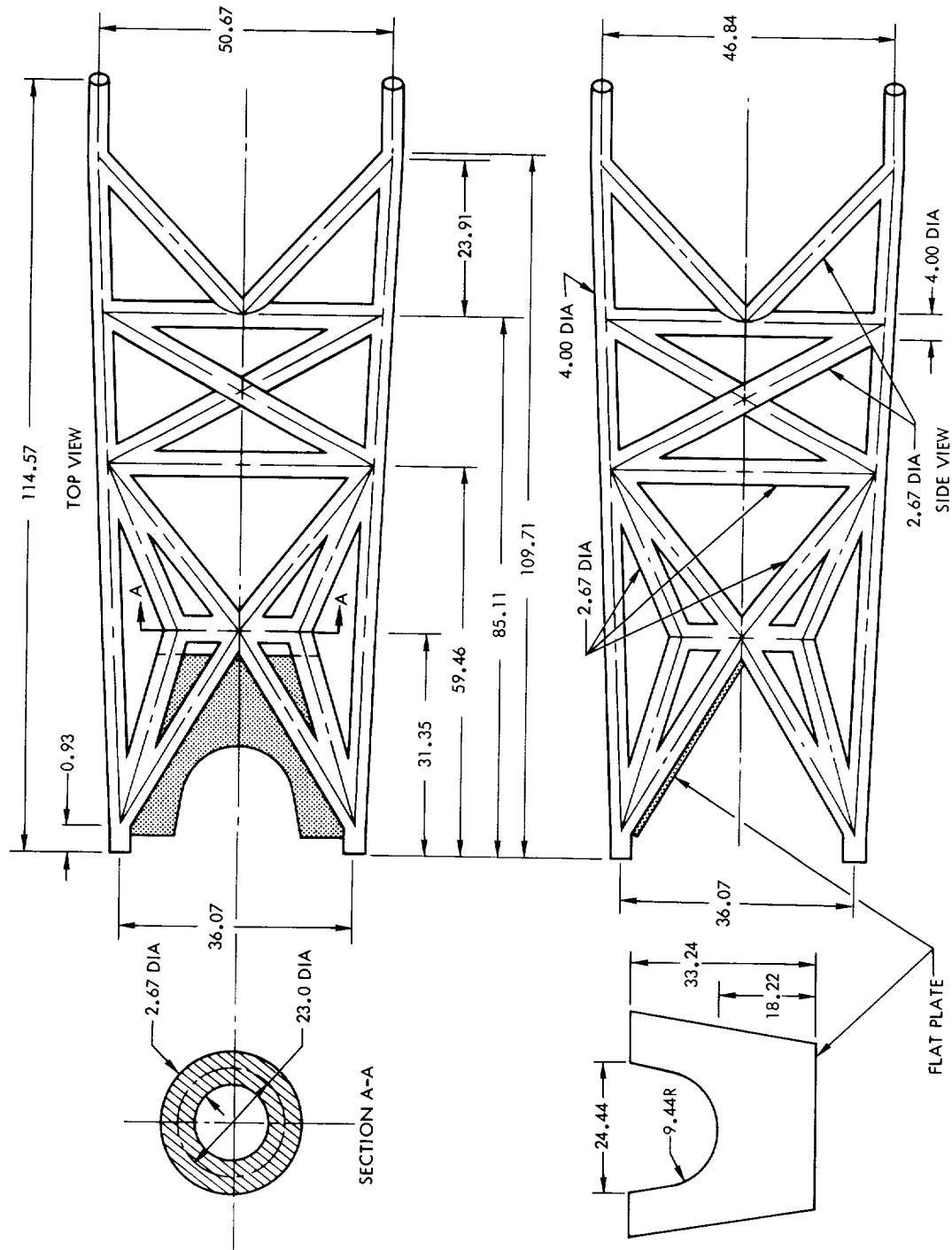
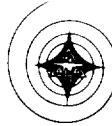


FULL-SCALE DIMENSIONS IN INCHES

SIDE VIEW

ESCAPE TOWER STRUCTURE T64

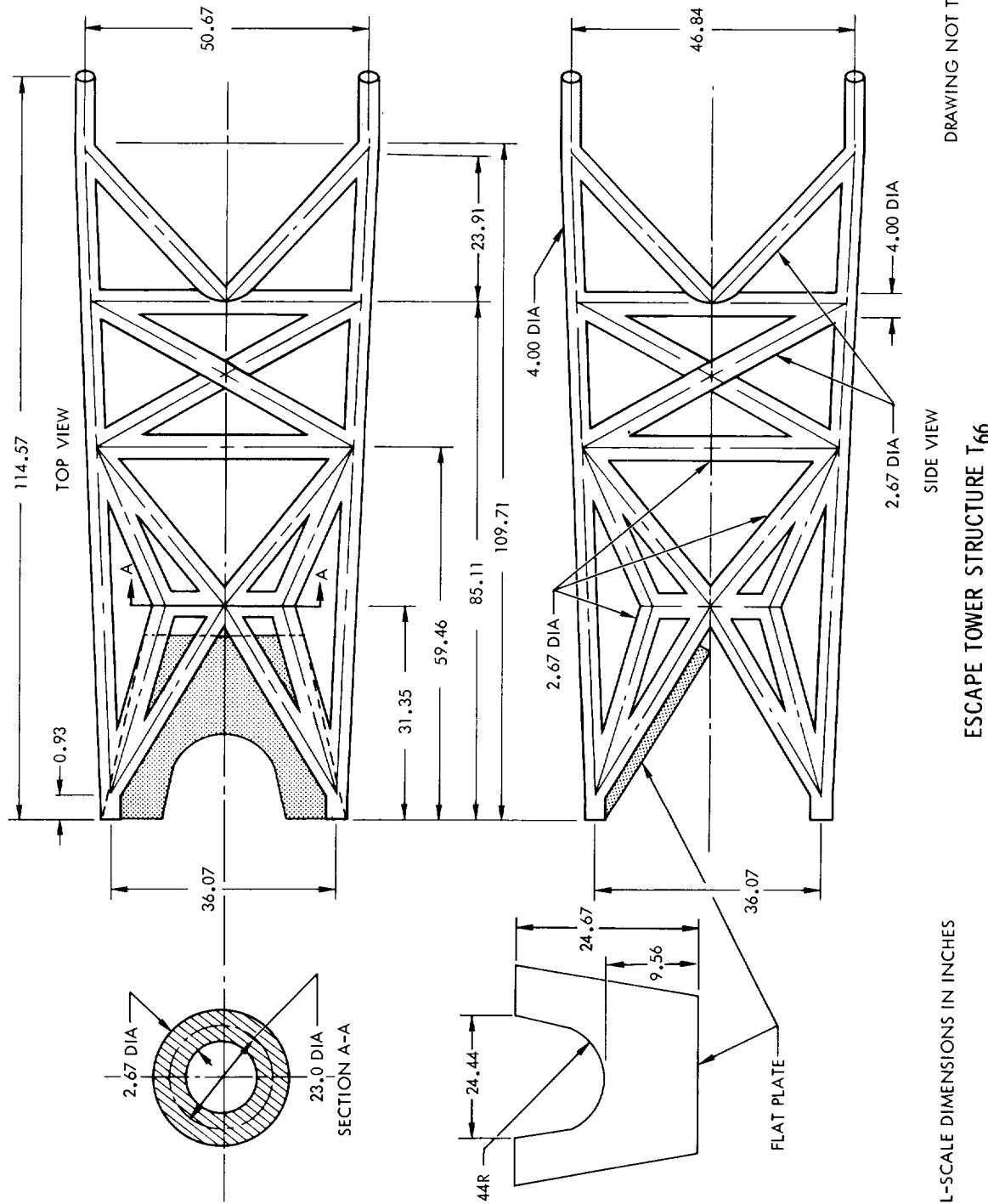
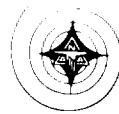
DRAWING NOT TO SCALE

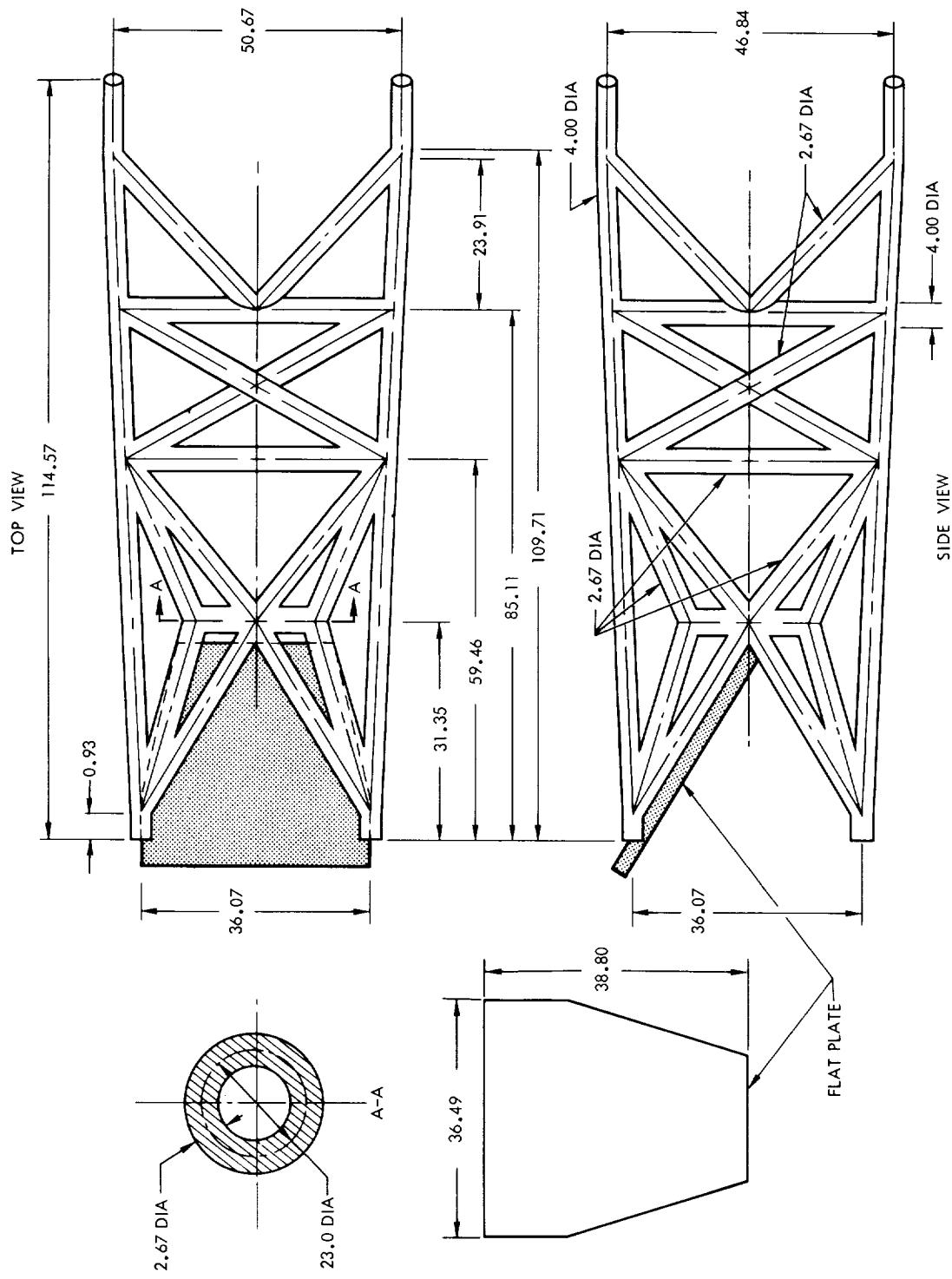


DRAWING NOT TO SCALE

## ESCAPE TOWER STRUCTURE T65

FULL-SCALE DIMENSIONS IN INCHES

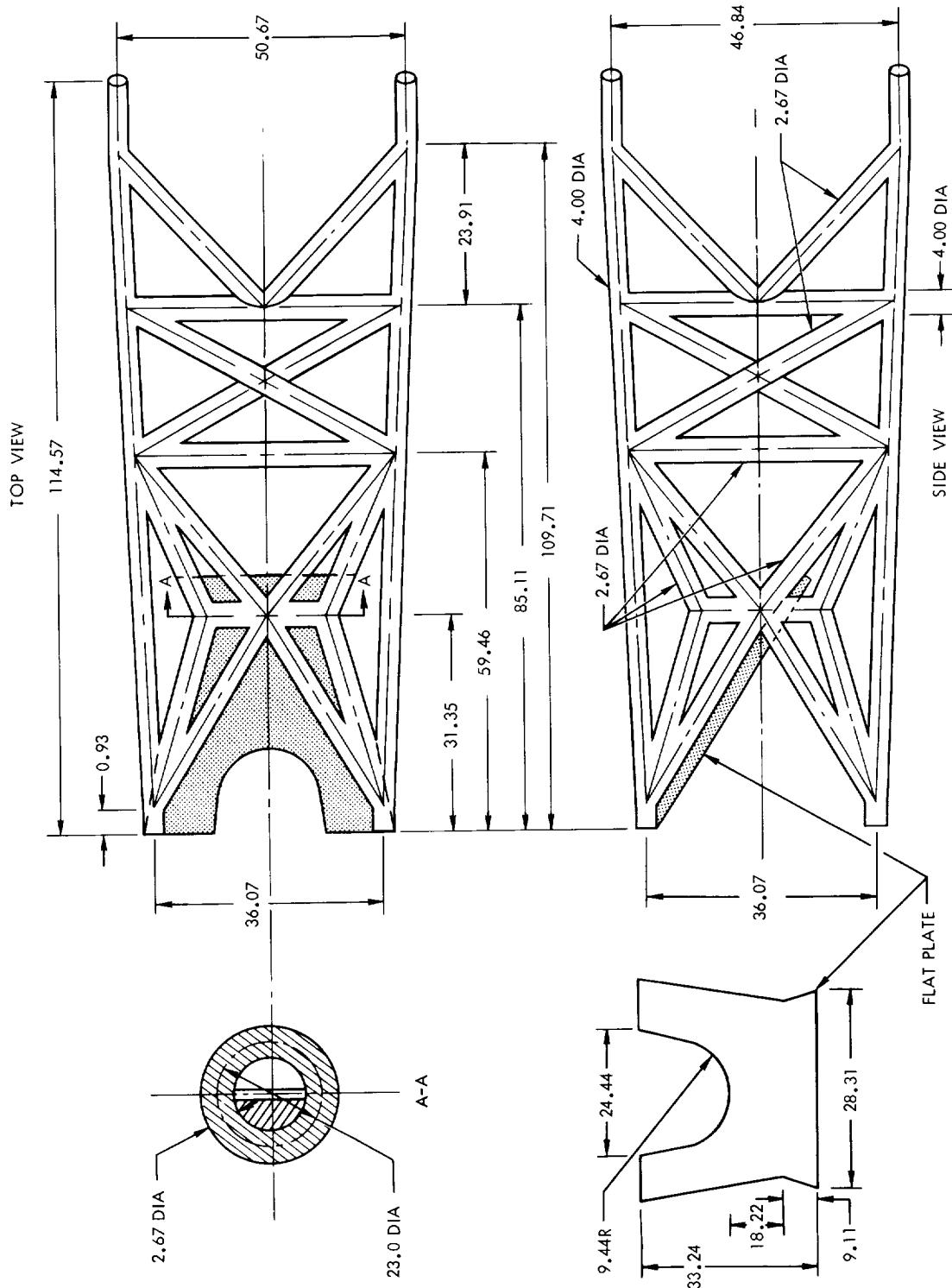
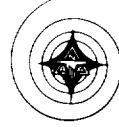




FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T-67

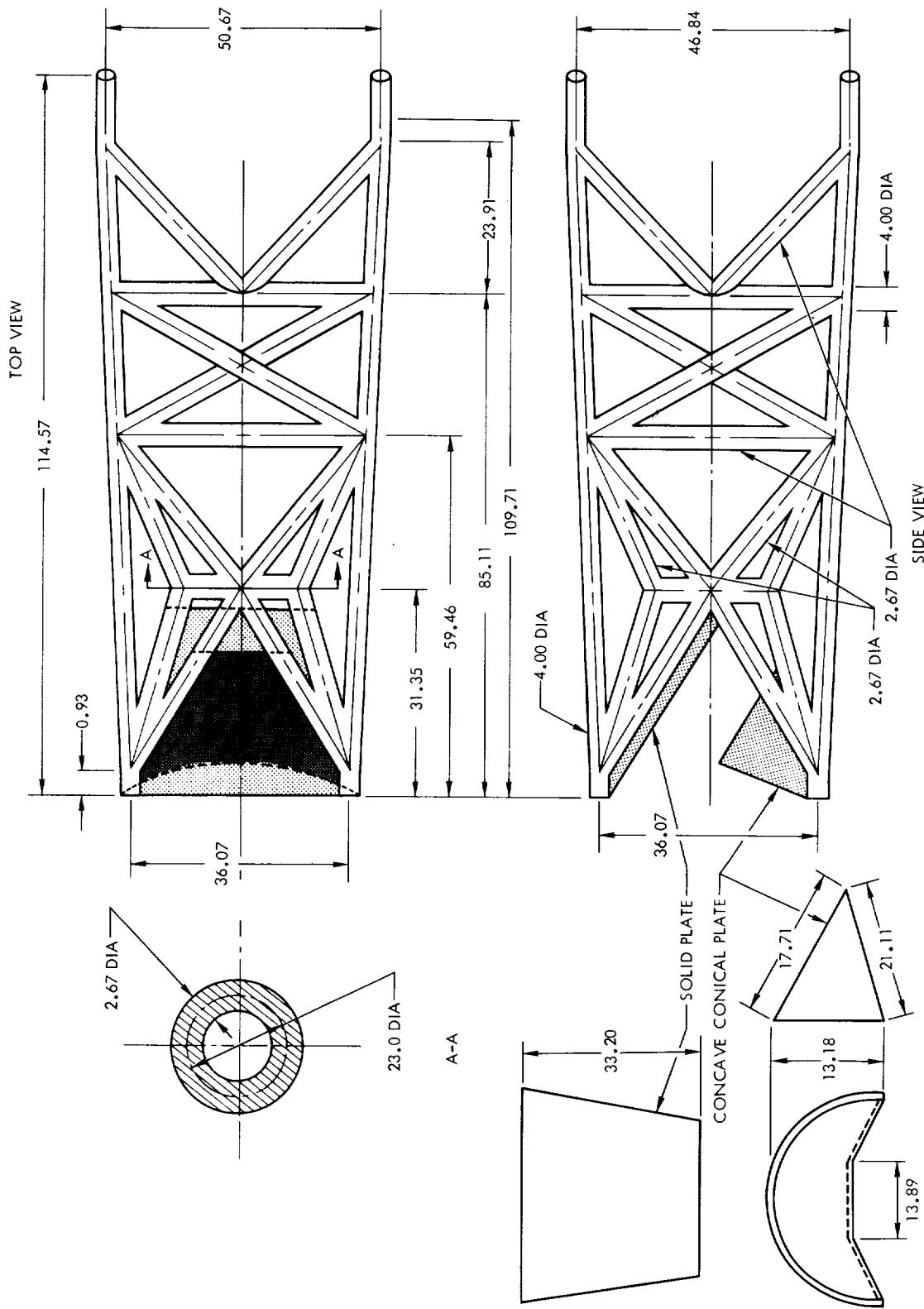
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

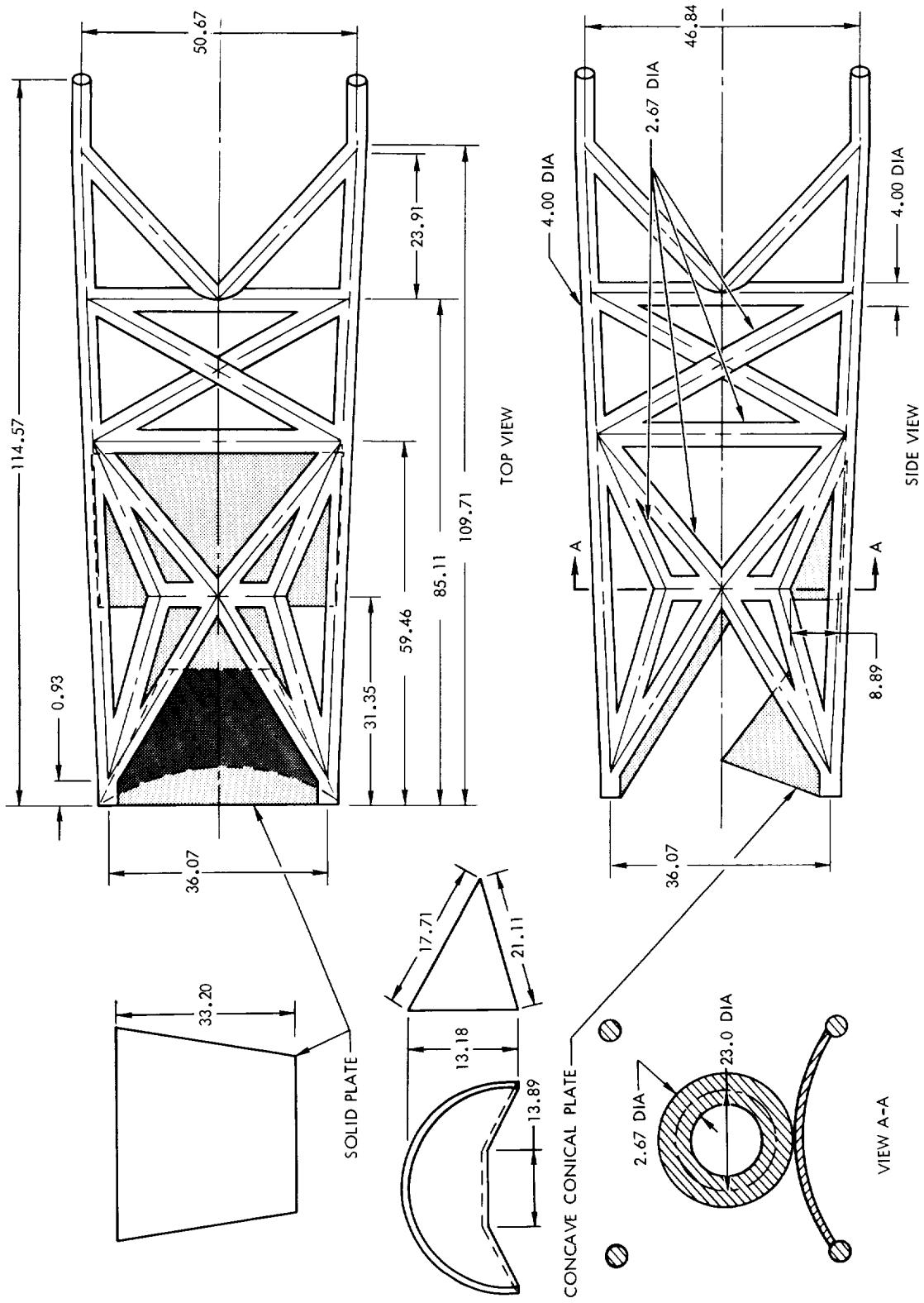
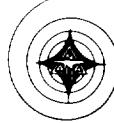
DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T68



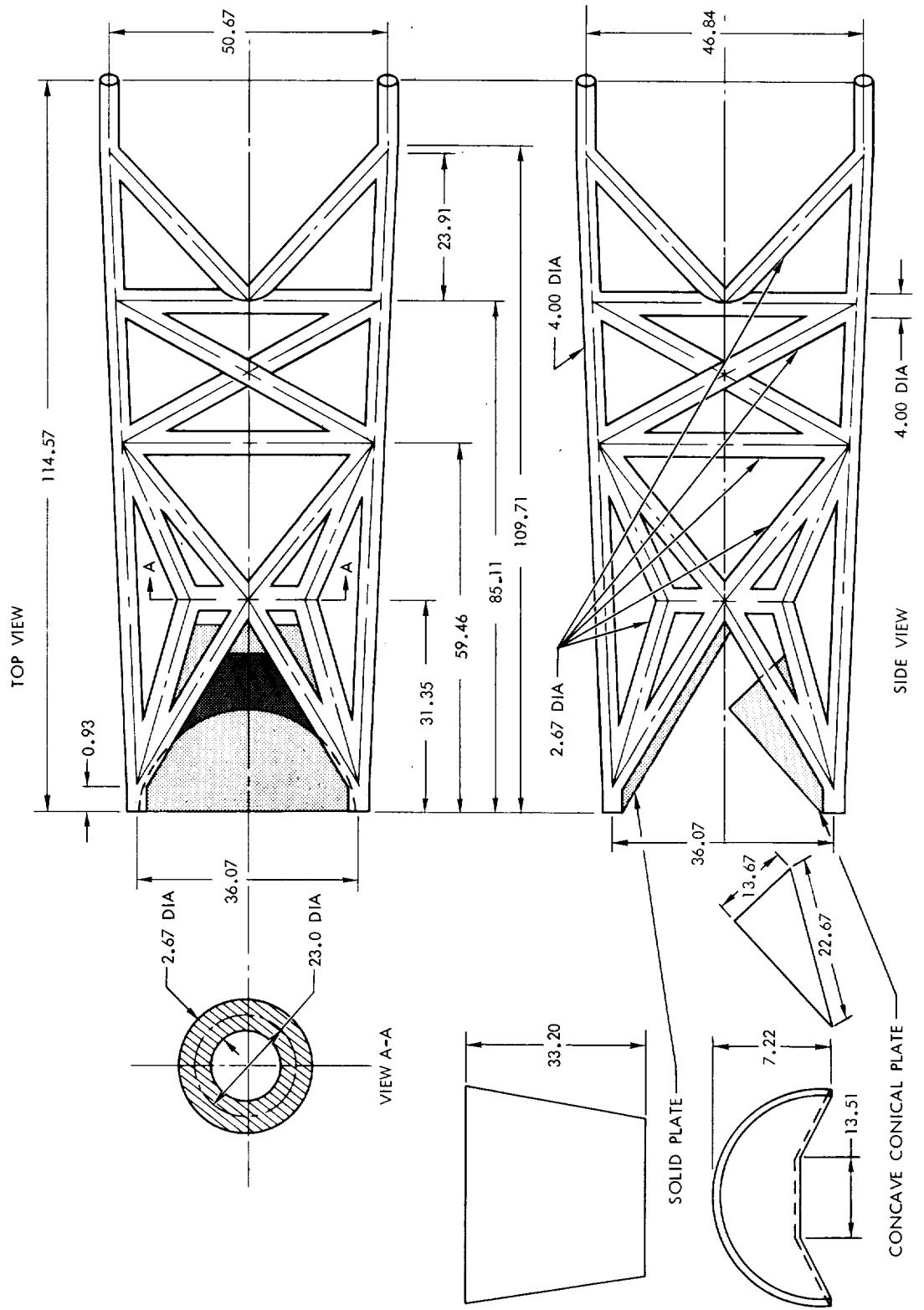
DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T69



ESCAPE TOWER STRUCTURE T-70

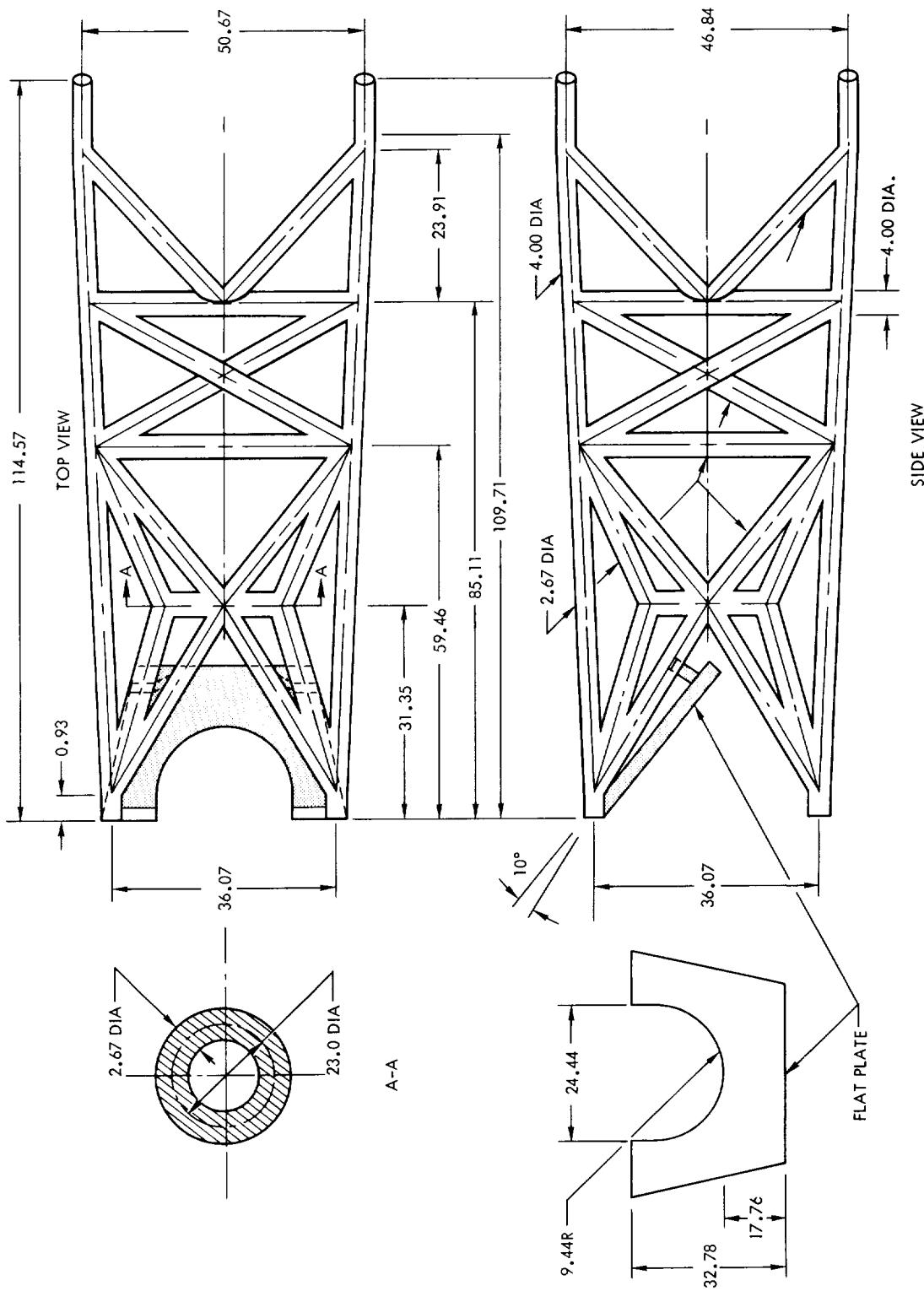
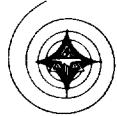
FULL-SCALE DIMENSIONS IN INCHES



#### FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

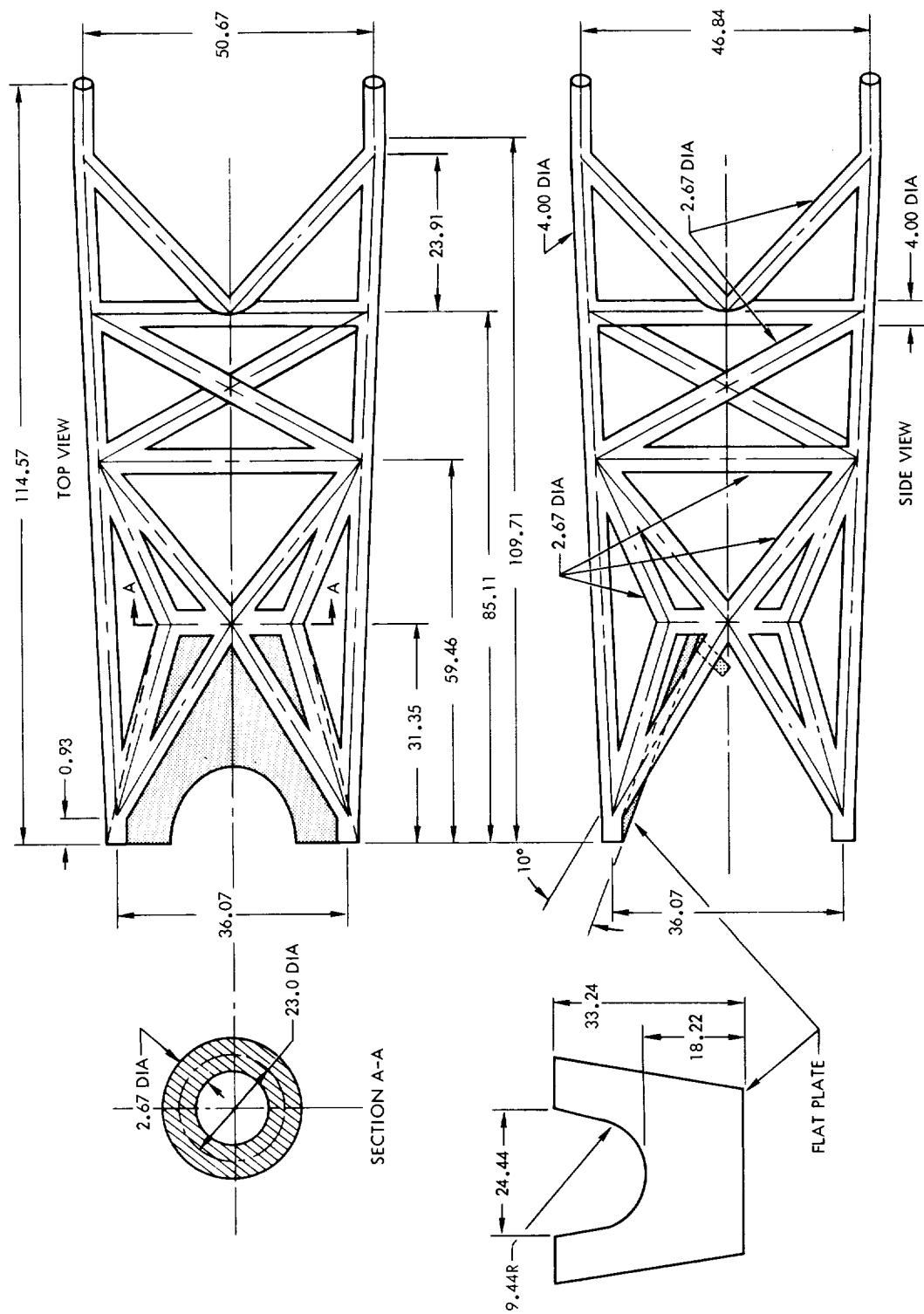
ESCAPE TOWER STRUCTURE T 71



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T<sub>72</sub>

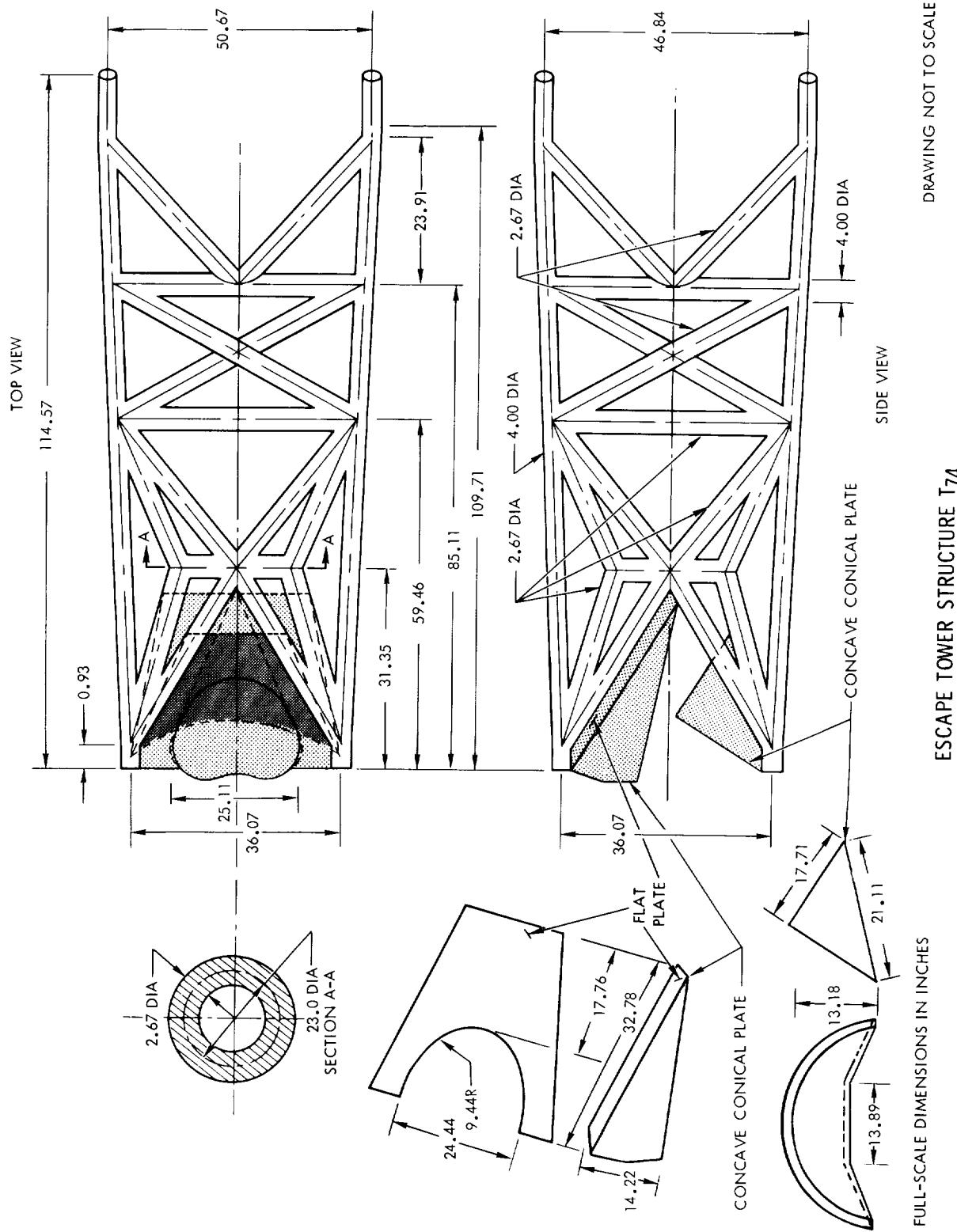
DRAWING NOT TO SCALE

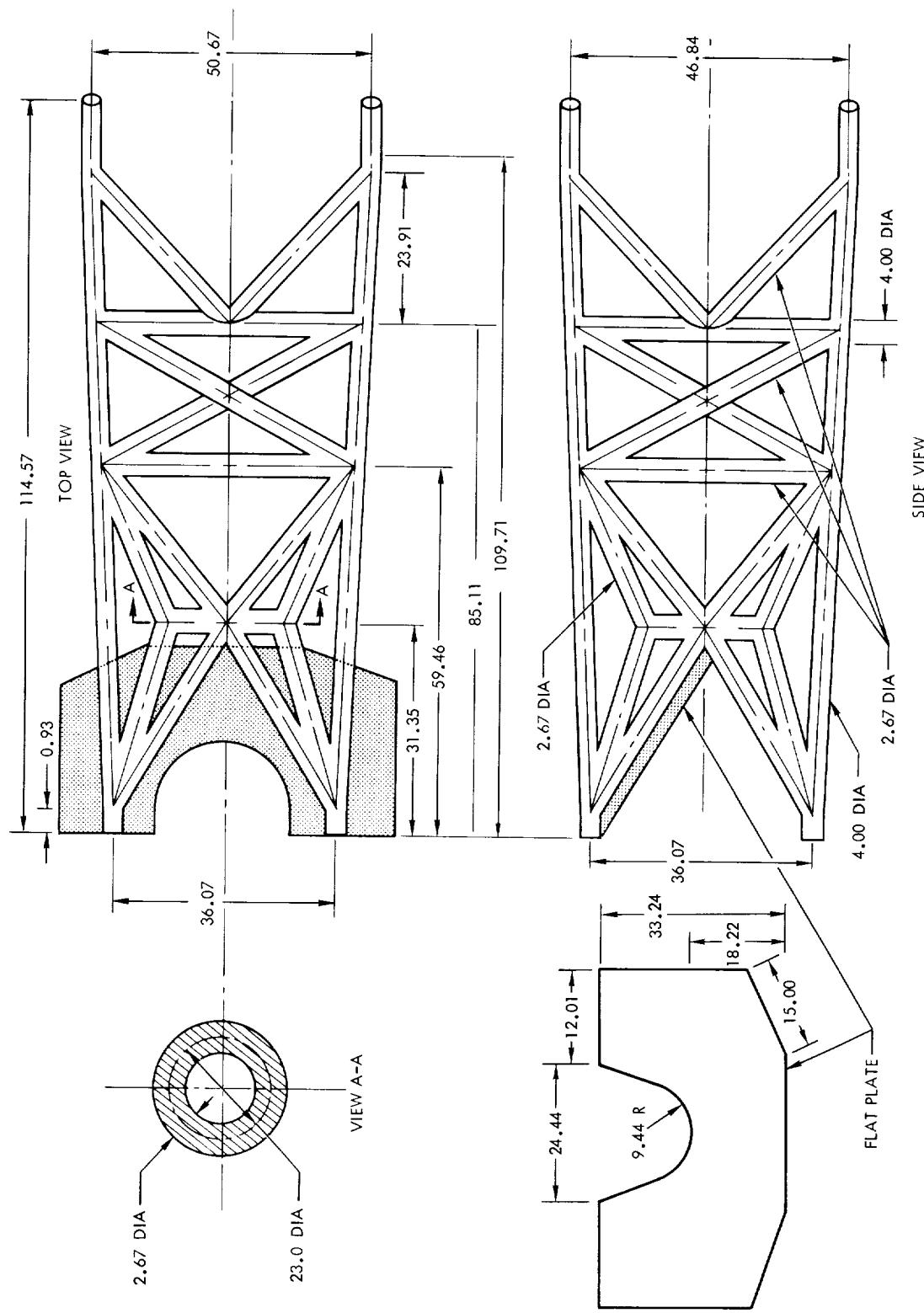


FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T73

DRAWING NOT TO SCALE

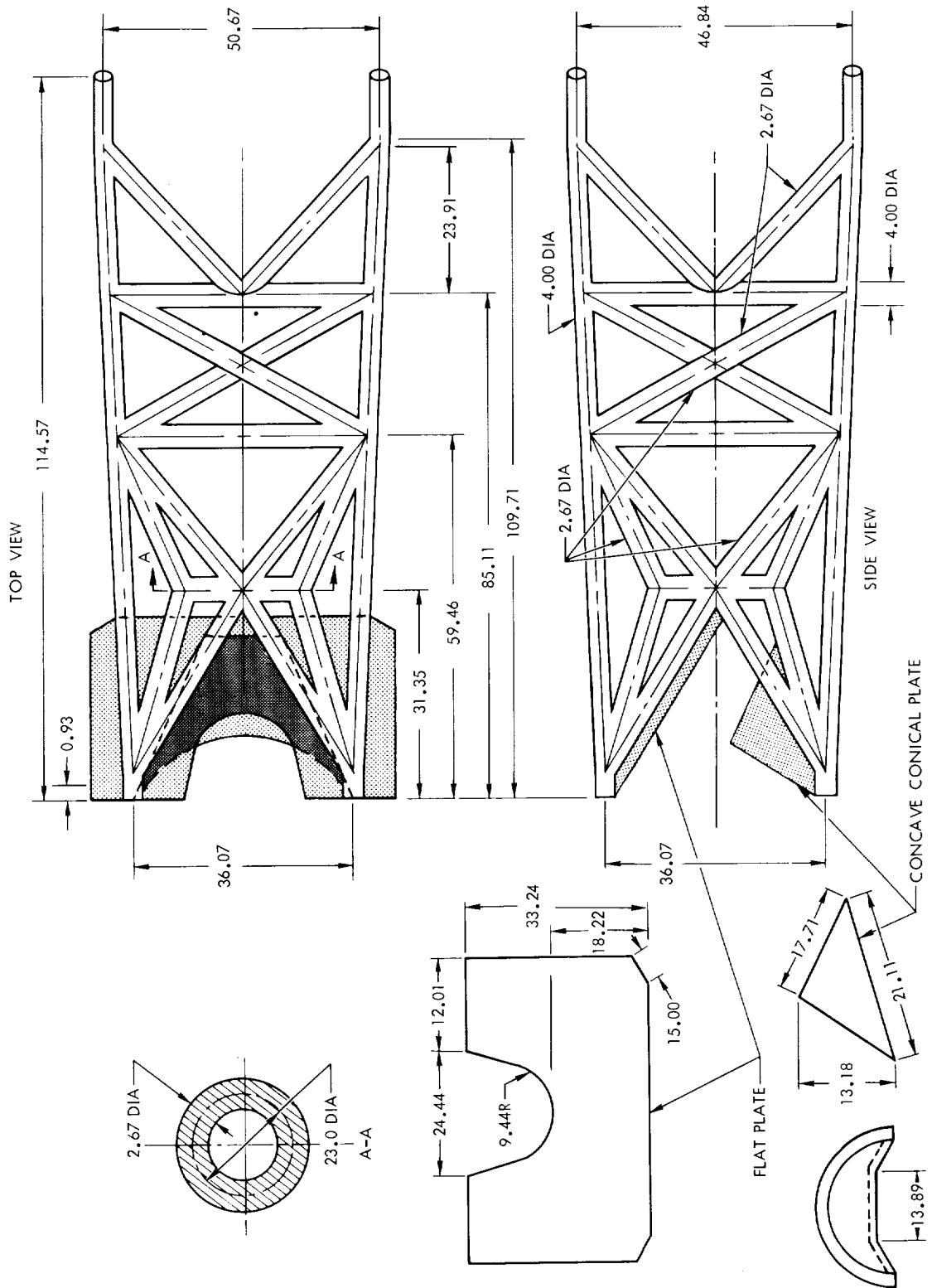




FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T-75

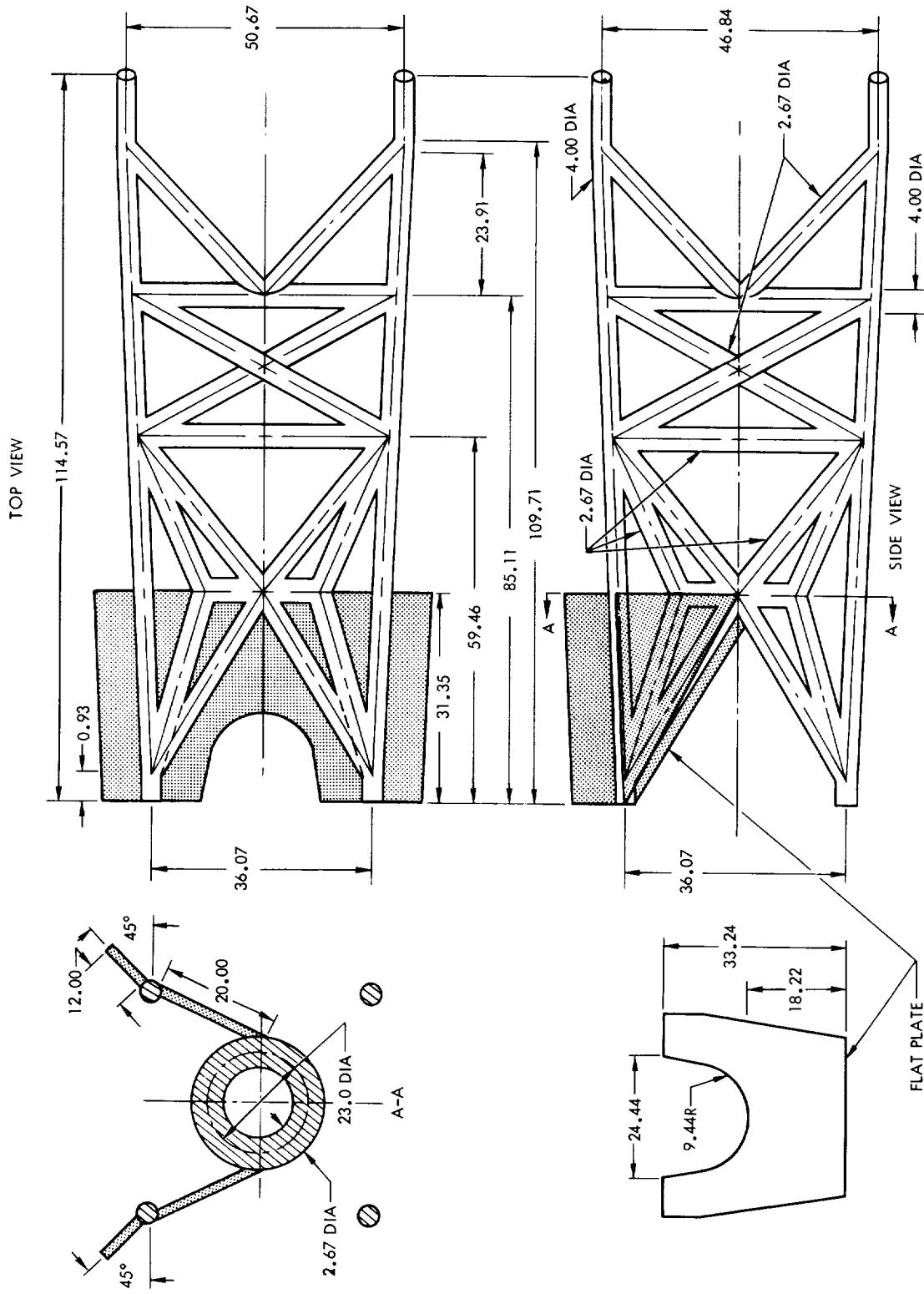
DRAWING NOT TO SCALE



ESCAPE TOWER STRUCTURE T76

FULL-SCALE DIMENSIONS IN INCHES

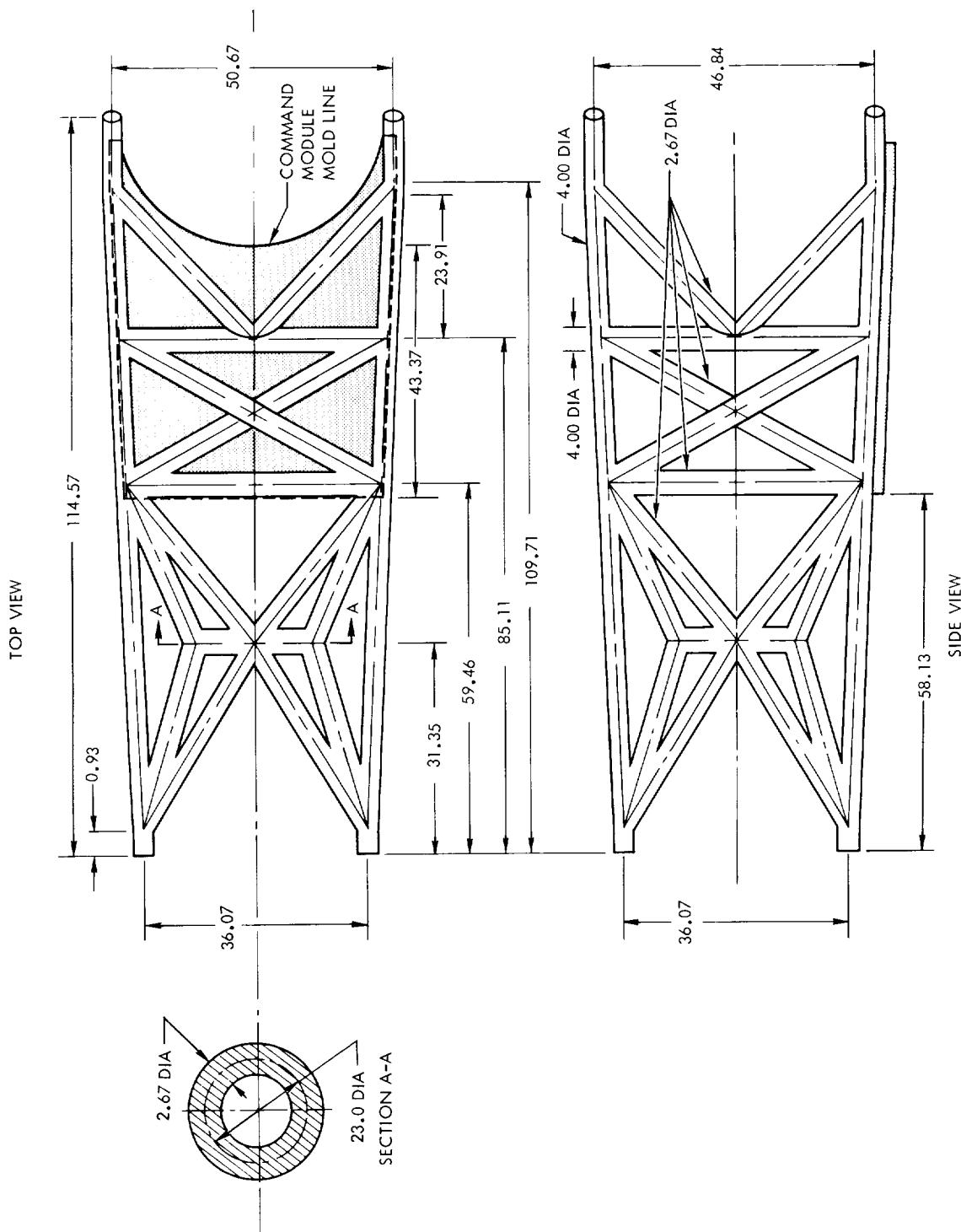
DRAWING NOT TO SCALE

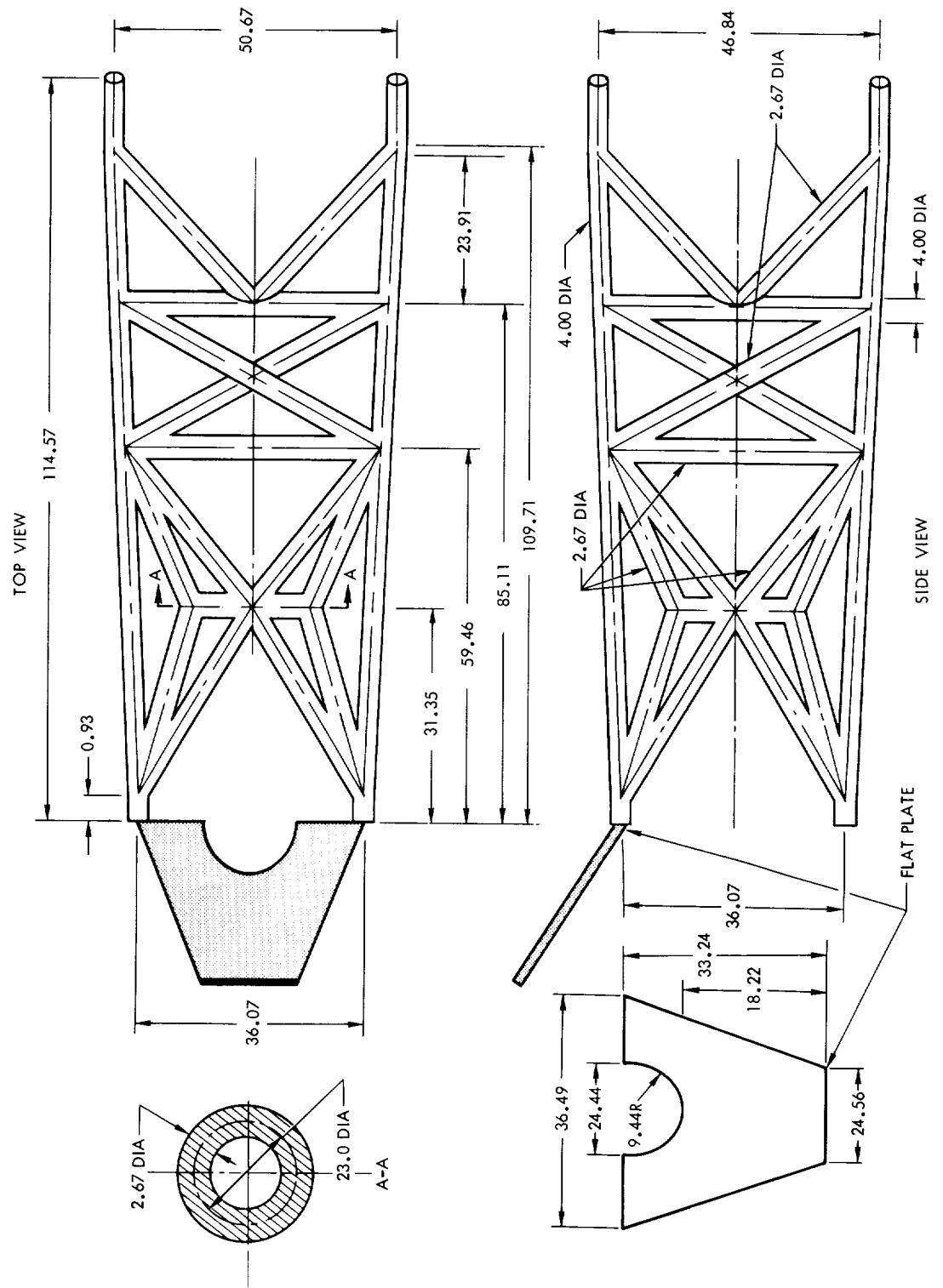


DRAWING NOT TO SCALE

## ESCAPE TOWER STRUCTURE T77

FULL-SCALE DIMENSIONS IN INCHES

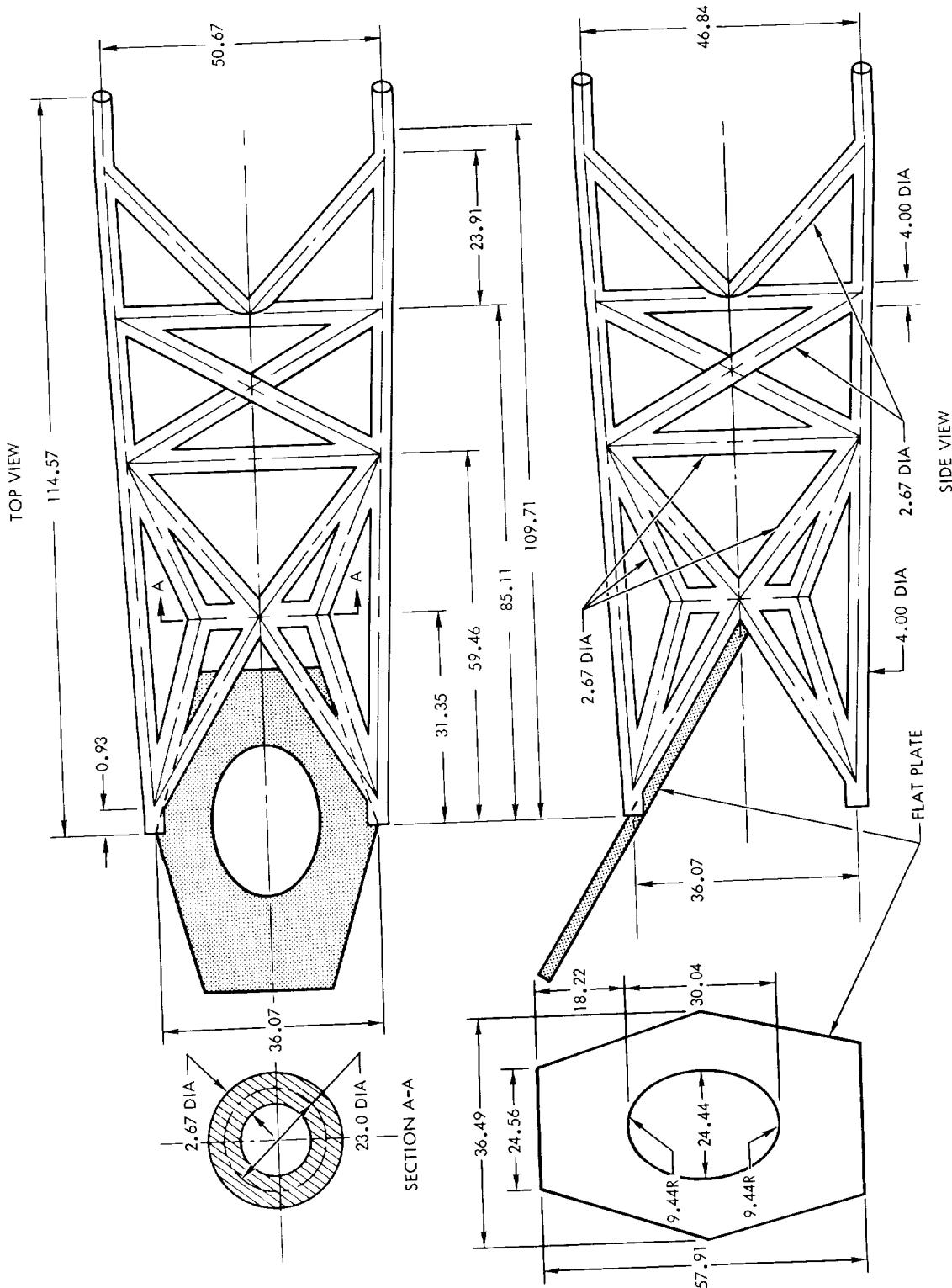
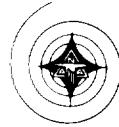




#### FULL-SCALE DIMENSIONS IN INCHES

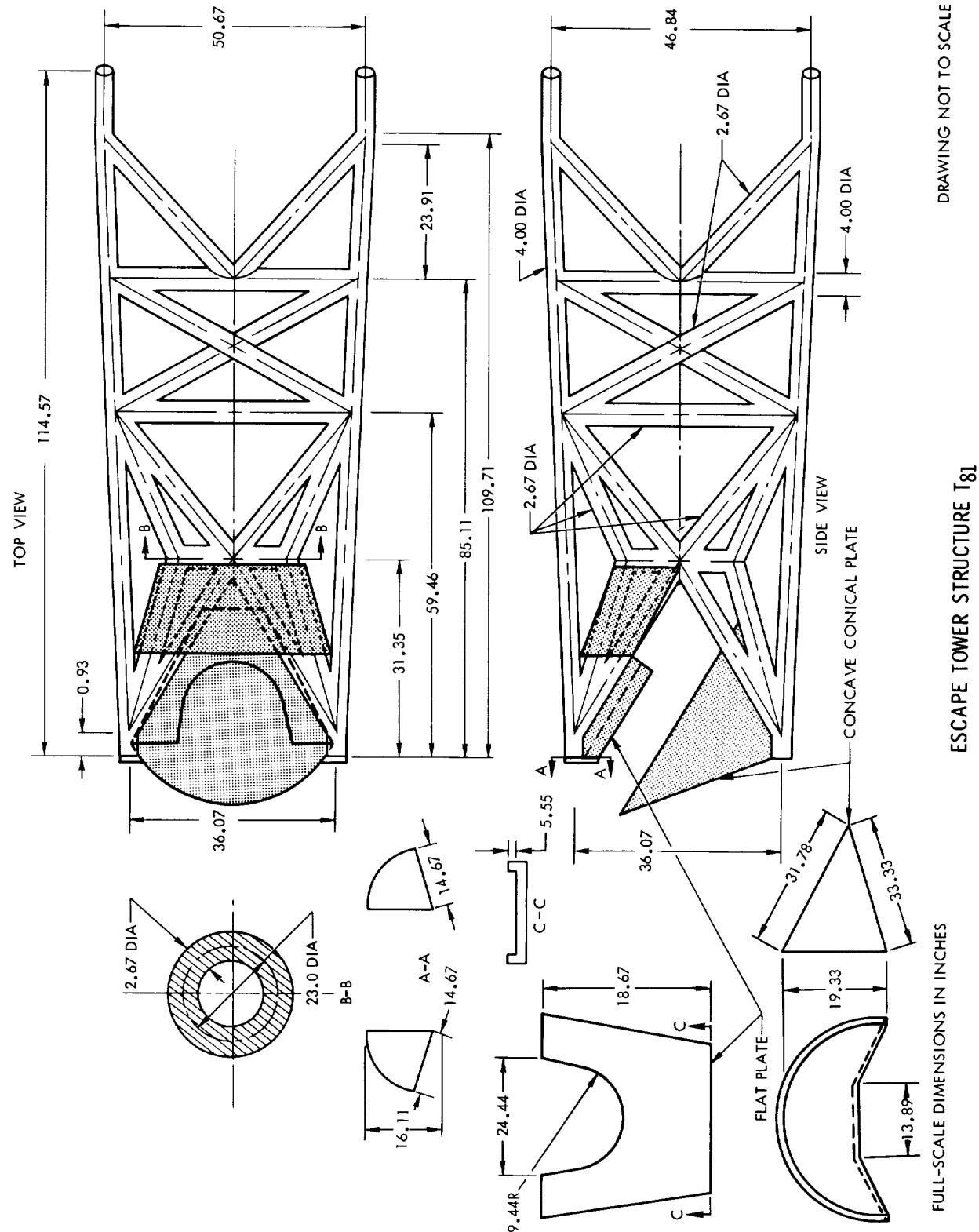
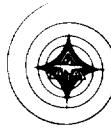
ESCAPE TOWER STRUCTURE 79

DRAWING NOT TO SCALE



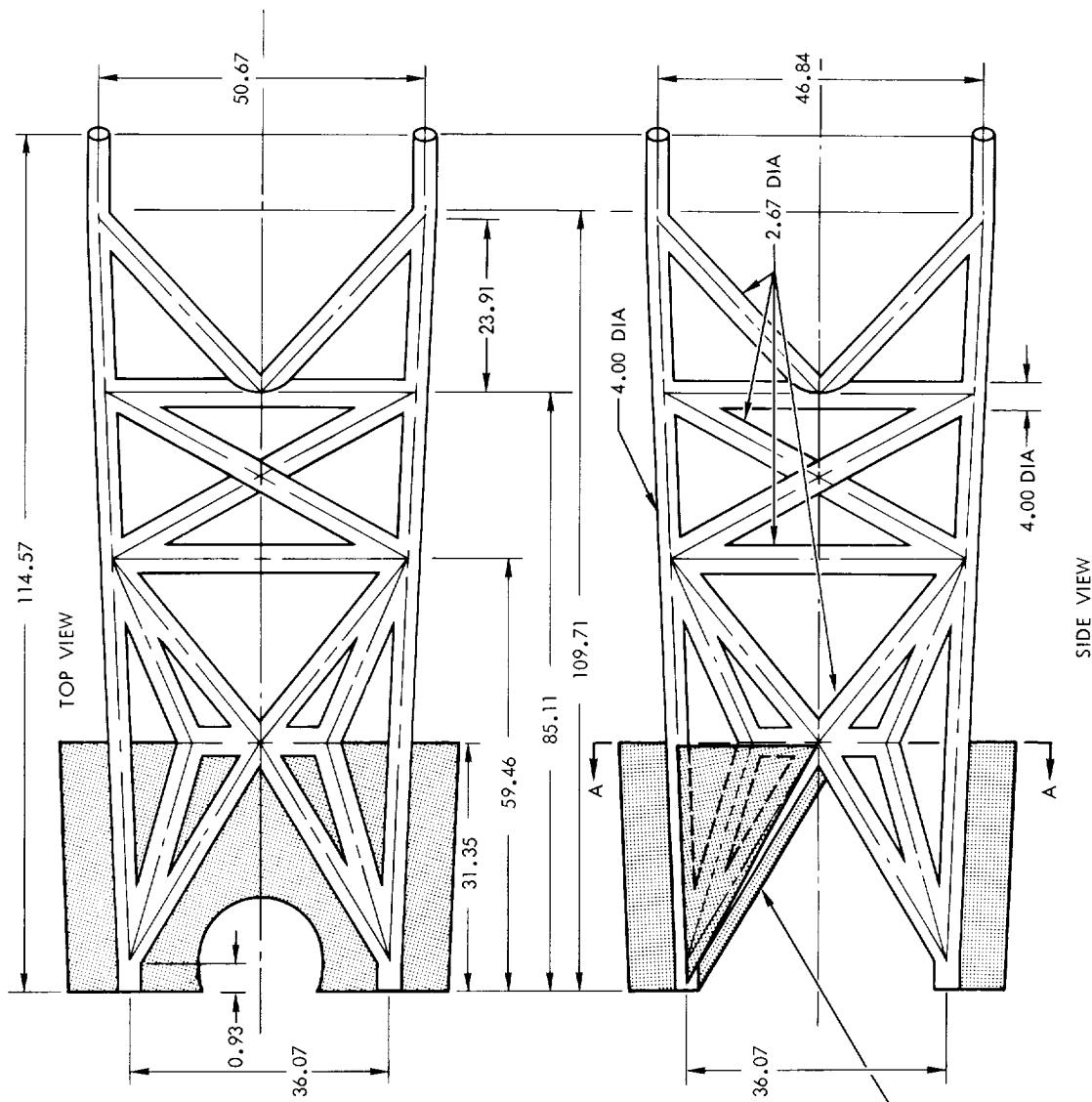
ESCAPE TOWER STRUCTURE T80

FULL-SCALE DIMENSIONS IN INCHES



2-124

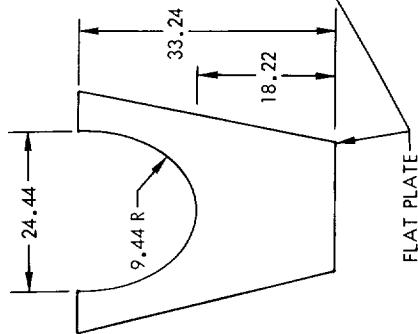
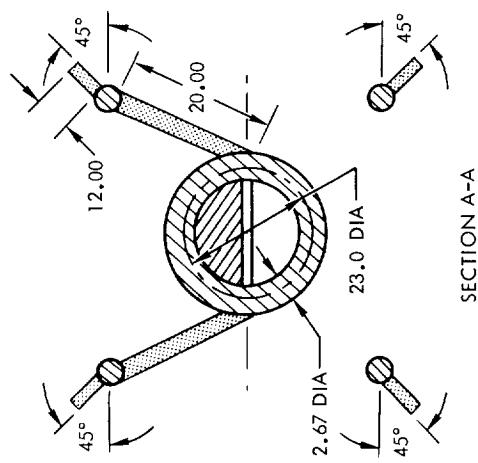
SID 63-44

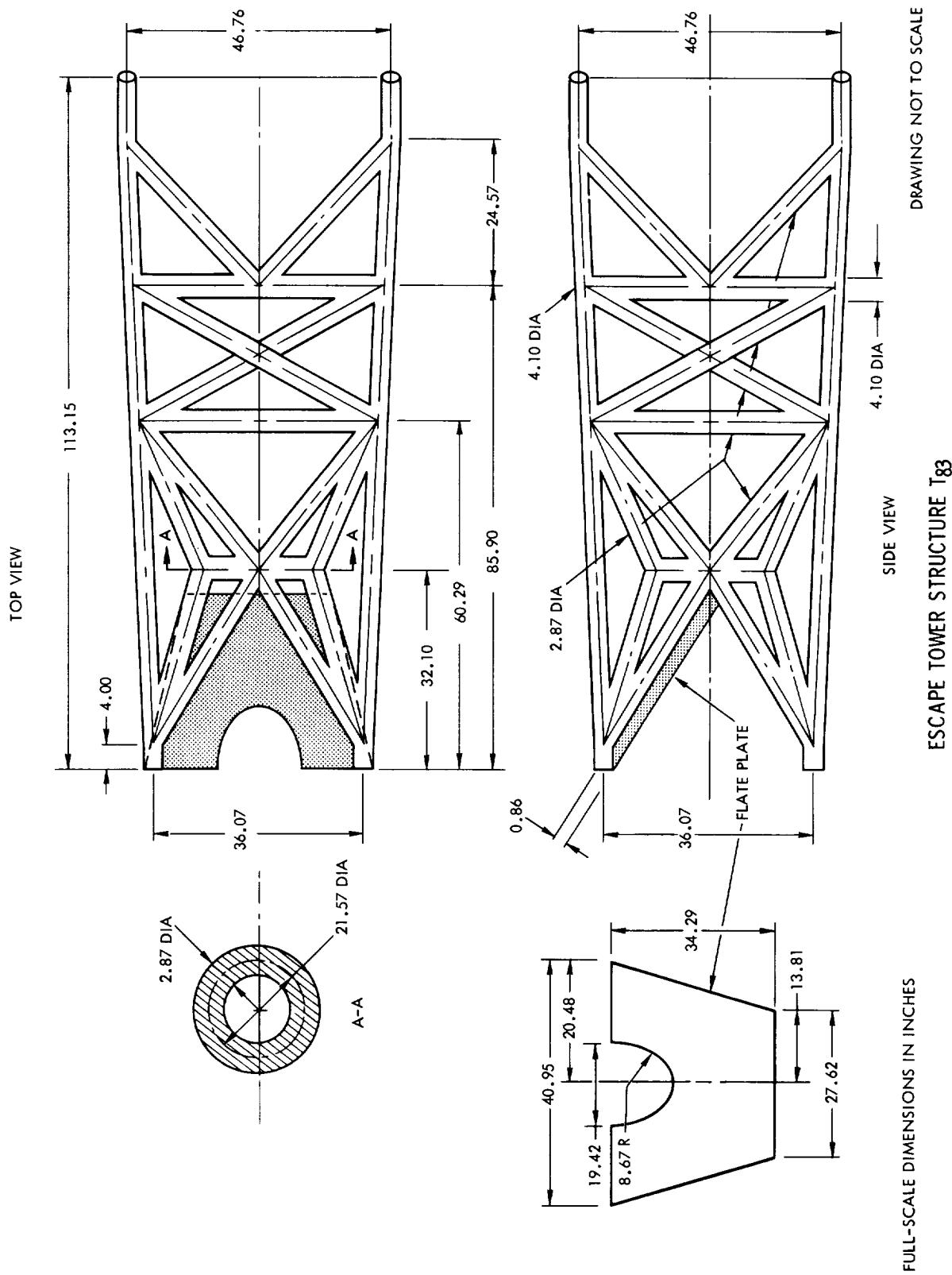


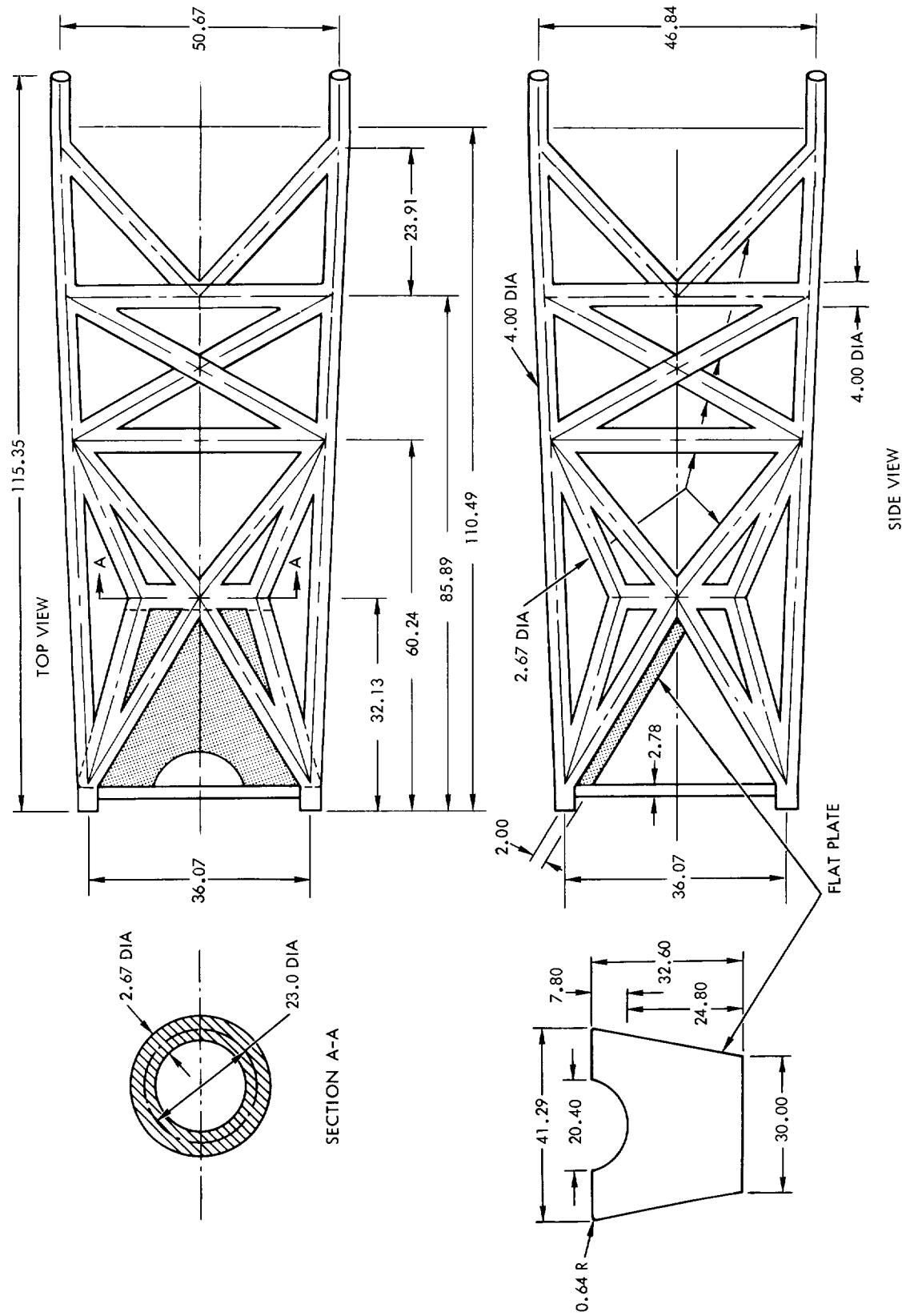
DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T82

FULL-SCALE DIMENSIONS IN INCHES



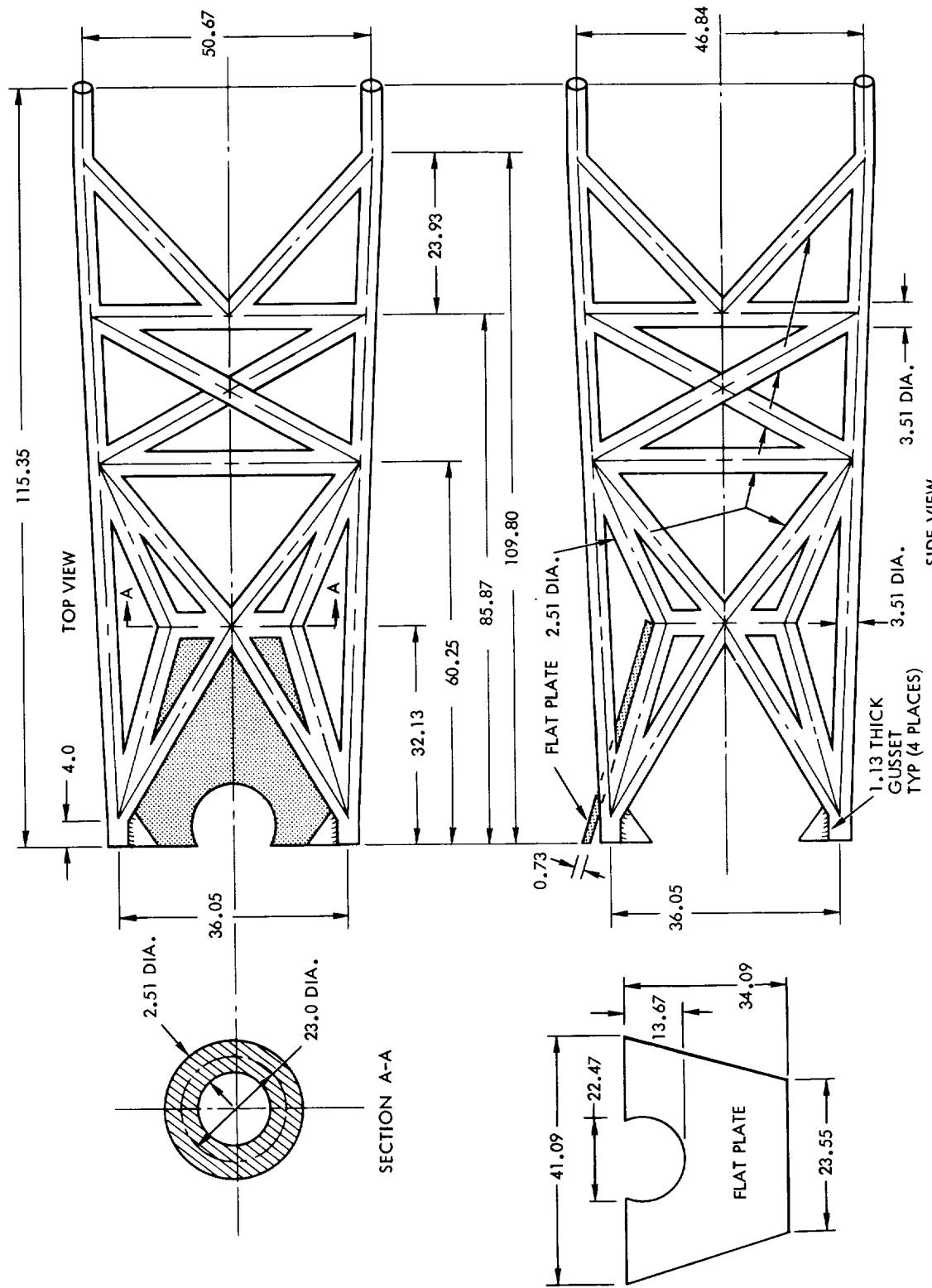
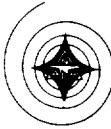




DRAWING NOT TO SCALE

ESCAPE TOWER STRUCTURE T84

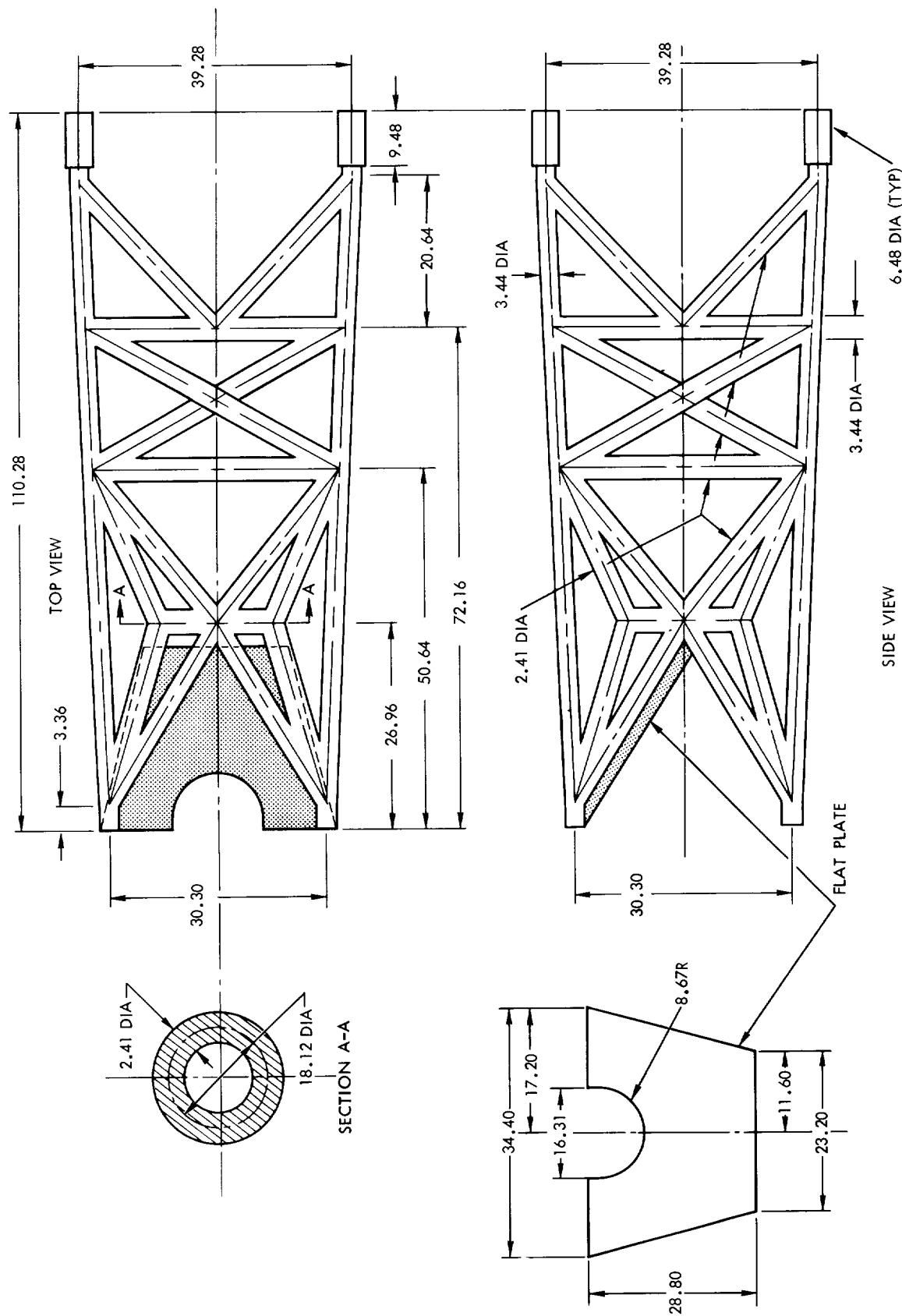
2-127  
SID 63-44



FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

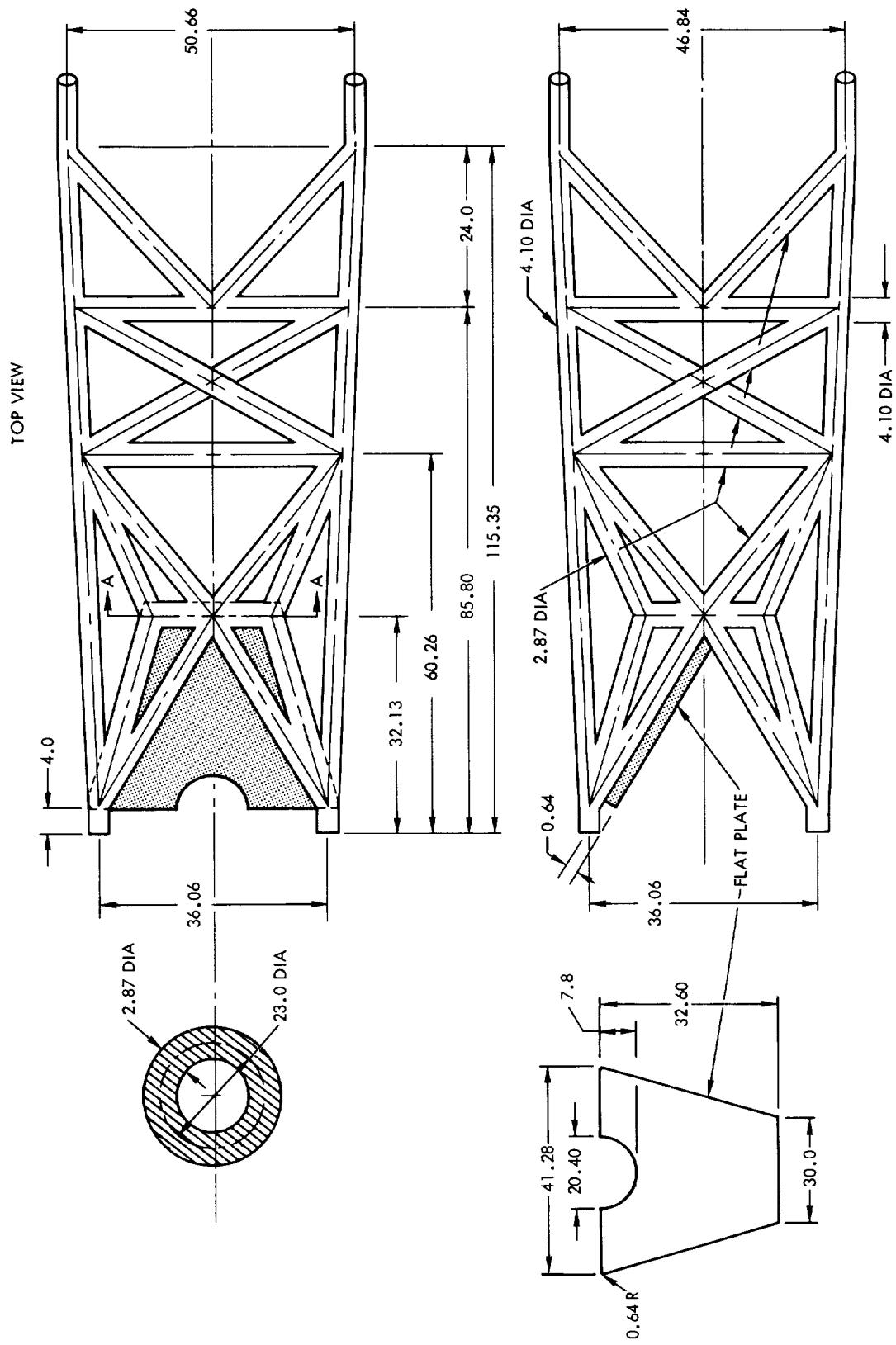
ESCAPE TOWER STRUCTURE T85



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T86

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE TOWER STRUCTURE T87

DRAWING NOT TO SCALE



## SUMMARY OF ESCAPE ROCKET VARIABLES

E. No.	Rocket Diameter (in.)	Total Length (in.)	Nose Shape		Skirt Shape		Disc Diameter (in.)	Disc Location	Miscellaneous
			Radius (in.)	Cone	Diameter (in.)	Flare			
1	26.0	248.412	5.2	60°*	47.00	30°*	None	None	Air jettison motor, Toroidal tanks
2	26.0	248.412	6.2	60°*	None	30°*	None	None	Air jettison motor
3	26.0	275.645	21.0	15°, Offset	47.00	30°*	None	None	Air jettison motor, Toroidal tanks
4	26.0	248.412	5.2	60°*	47.00	30°*	None	None	Air jettison motor
5	26.0	275.645	21.0	15°, Offset	47.00	30°*	None	None	Air jettison motor
6	26.0	278.917	6.2	60°*	47.00	30°*	None	None	
7	26.0	278.917	5.2	60°*	47.00	30°*	None	None	Forward jettison motor with protruding nozzles
8	26.0	278.917	5.2	60°*	52.50	30°*	None	None	Forward jettison motor with protruding nozzles
9	249.049	261.917	5.2	60°*	58.00	33°*	47.00	30°*	Reverse flow, 30° forward skirt angle
10	26.0	278.917	5.2	60°*	47.00	30°*	None	None	Forward jettison motor, nozzles flush
11	252.450	242.0	15°, Offset	47.00	52.00	None	None	None	
12	26.0	278.917	5.2	60°*	41.60	None	None	None	
13	26.0	278.917	5.2	60°*	47.00	None	None	None	
14	252.493	21.0	30°*	47.00	52.00	None	None	None	
15	26.0	278.917	5.2	60°*	52.00	None	None	None	
16	252.369	261.917	5.2	60°*	65.00	None	None	None	
17	252.369	261.917	5.2	60°*	78.00	None	None	None	
18	254.368	24.0	30°*	52.00	None	None	None	None	Reverse step nose
19	252.630	252.0	17.21.0	52.00	None	None	65.0	None	Blunt nose
20	252.630	252.0	30°*	47.00	52.00	None	None	Forward of skirt	
21	252.390	252.0	30°*	52.00	52.00	None	None	Forward of skirt	
22	252.390	252.0	30°*	52.00	52.00	None	None	Canard added to nose	
23	254.889	252.0	30°*	52.00	65.0	None	None	Forward of skirt	
24	252.390	252.0	30°*	51.85	34°	52.00	None	Alt of skirt	
25	252.390	252.0	30°*	52.00	30°*	52.00	None	Ring forward of skirt base	
26	252.390	252.0	30°*	51.85	34°	52.00	None	Ring forward of skirt base	
27	252.390	252.0	30°*	51.85	34°	52.00	None	10.4 in. clipped from bottom of disc	
28	252.390	252.0	30°*	51.85	34°	52.00	None	15.6 in. clipped from bottom of disc	
29	252.390	252.0	30°*	51.85	34°	52.00	None	19.5 in. clipped from bottom of disc	
30	252.390	252.0	30°*	51.85	34°	52.00	None	19.5 in. clipped from bottom of disc, ring fwd of skirt base	
31	252.390	252.0	30°*	51.85	34°	52.00	None	Center of disc 5.2 in. above rocket centerline	
32	252.390	252.0	30°*	51.85	34°	52.00	None	Center of disc 7.8 in. above rocket centerline	
33	252.390	252.0	30°*	51.85	34°	52.00	None	Center of disc 10.4 in. above rocket centerline	
34	252.390	252.0	30°*	51.85	34°	52.00	None	Center of disc 10.4 in. above rocket centerline	
35	252.390	252.0	30°*	51.85	34°	52.00	None	Ring forward of skirt base	
36	252.390	252.0	30°*	51.85	34°	52.00	None	Ring forward of skirt base	
37	252.390	252.0	30°*	51.85	34°	52.00	None	Ring forward of skirt base	
38	254.889	252.0	30°*	51.85	34°	52.00	91.0	Alt of skirt	
39	254.889	252.0	30°*	51.85	34°	51.00	None	Ring forward of skirt base	
40	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt base	
41	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt base	
42	257.279	257.279	30°*	51.85	34°	51.00	None	This disc attached near tower base	
43	257.279	257.279	30°*	51.85	34°	51.00	None	This disc attached near tower base	
44	257.279	257.279	30°*	51.85	34°	51.00	None	0.0 in. clipped from bottom of disc	
45	257.279	257.279	30°*	51.85	34°	51.00	None	A second disc, 78.0 in. diameter, attached near tower base	
46	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt base	
47	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt base	
48	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt base	
49	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
50	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt	
51	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
52	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
53	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
54	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
55	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
56	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
57	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
58	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
59	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
60	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
61	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
62	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
63	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
64	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
65	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
66	257.279	257.279	30°*	51.85	34°	51.00	None	Ring forward of skirt, four fairings on disc to skirt	
67	26.0	279.670	21.0	30°	52.73	None	None	None	Four fairings on skirt, ring fairing from disc to skirt
68	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body
69	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, ring fairing from disc to skirt
70	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, ring fairing from disc to skirt
71	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body
72	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body, four fairings on body
73	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body, four fairings on body, four fairings on body
74	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body, four fairings on body, four fairings on body, four fairings on body
75	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body, four fairings on body, four fairings on body, four fairings on body
76	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body, four fairings on body, four fairings on body, four fairings on body
77	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body, four fairings on body, four fairings on body, four fairings on body
78	26.0	279.670	21.0	30°	52.73	None	None	None	Ring forward of skirt, four fairings on skirt body, four fairings on body, four fairings on body, four fairings on body

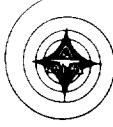
\*Nozzles of forward jettison motor of escape rocket motors E-10 through E-12 are burred flush with the surface.

\*\*ES-2 only

†HL-2, HL-4, and HL-1B.

‡H-2 only

§FD-5 only



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E	Escape rocket motor - Total length including aft jettison motor = 248.4 in. Length of aft jettison motor = 69.5 in. Diameter of jettison motor = 8.0 in. Jettison motor nozzle exit halfangle = 17 deg. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Nose radius = 5.2 in. Nose included angle = 60 deg. Two toroid tanks located forward of flared skirt. Diameter of section of forward tank = 5.0 in.; diameter of section of aft tank = 9.0 in.	M. C. D. H. H. S.	FS-1 PS-1	7121-01051-14, -15, and -17	SAL-1201 JPL 20- 495 JPL 21- 98	NA 62-82 SID 62-343 SID 62-246 Not tested SID 62-246 Not tested
J.K.					JPL 20- 493B JPL 21- 100	SID 62-252 Not tested SID 62-252 Not tested
C.B.					Ames 76 (11by11) 100 (9by7) 106 (8by7)	SID 62-100 SID 62-601
E <sub>2</sub>	Total length including aft jettison motor = 248.4 in. Length of aft jettison motor = 69.5 in. Diameter of jettison motor = 8.0 in. Jettison motor nozzle exit halfangle = 17 deg. Diameter of escape rocket forward end = 26.0 in. Linear taper	M. C.	FS-1	7121-01051-15 and -16	LUPWT - 349	None SID 62-536
					SAL-1201 JPL 20- 495 JPL 21- 98	NA 62-82 SID 62-343 SID 62-246 Not tested SID 62-246 Not tested



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>2</sub> (Cont)	to aft end = 47.0 in., no skirt, no external toroid tanks. Nose radius = 5.2 in. Nose included angle = 60 deg.	J.K.	FS-2	7121-01080-6, -7, and -8	Ames 76 (11by11) 100 (9by7) 106 (8by7)	SID 62-100 SID 62-601
		D.H. H.S.	PS-1	7121-01051-15 and -16	JPL 20- 493B JPL 21- 100	SID 62-252 Not tested SID 62-252 Not tested
E <sub>3</sub>	Total length including aft jettison motor = 273.65 in. Length of aft jettison motor = 69.5 in. Diameter of jettison motor = 8.0 in. Jettison motor nozzle exit halfangle = 17 deg. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Two toroid tanks located forward of flared skirt. Diameter of section of forward tank = 5.0 in. Diameter of section of aft tank = 9.0 in. Nose consists of an oblique circular cone with axis at 15 deg. to rocket body centerline. The element of the cone located at the bottom in the vertical plane of symmetry is coincident with an extension of an element of the cylinder which	M. C.	FS-1	7121-01051-14, -15, -17, and -22	SAL-1201	NA 62-82 SID 62-343
					JPL 20- 495 JPL 21- 98	SID 62-246 Not tested SID 62-246 Not tested
		J.K.	FS-2	7121-01080-2 -4, and -12	Ames 76 (11by11) 100 (9by7) 106 (8by7)	SID 62-100 SID 62-601
		D.H. H.S.	PS-1	7121-01051-14, -15, -17, and - 22	JPL 20- 493B JPL 21- 100	SID 62-252 Not tested SID 62-252 Not tested



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>3</sub> (Cont)	comprises the rocket motor body. Nose radius = 2.0 in.  (Same as E except new nose.)					
E <sub>4</sub>	Total length including jettison motor = 248.4 in. Length of jettison motor = 69.5 in. Diameter of jettison motor = 8.0 in. Jettison motor nozzle exit halfangle = 17 deg. Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Nose radius = 5.2 in. Nose included angle = 60 deg. No toroid tanks.  (Same as E except no toroid tanks.)	M. C. A.G.	FS-1	7121-01051-14, -15, and -34	SAL-1201	NA 62-82 SID 62-343
E <sub>5</sub>	Total length including jettison motor = 273.65 in. Length of jettison motor = 69.5 in. Diameter of jettison motor = 8.0 in. Jettison motor nozzle exit halfangle = 17 deg. Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Nose consists of an oblique circular cone with axis at 15 deg to rocket body centerline. The element of the	M. C. A.G.	FD-1	7121-01058-3, -5, and -9	LUPWT - 349	None SID 62-536
		C.B.	FD-2	7121-01058-3, -5, and -9	LUPWT - 374	None SID 62-1074
		C.B.	FD-2	7121-01058-3, -5, and -9	LTPPT	None SID 62-1065
		C.B.	FD-2	7121-01058-3, -5, and -9	233 (8by8)	NA 62-82 SID 62-343



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>5</sub> (Cont)	cone located at the bottom in the vertical plane of symmetry, is coincident with the extension of an element of the cylinder which comprises the rocket motor body. Nose radius = 2.0 in.  (Same as E <sub>3</sub> except no toroid tanks.)					
E <sub>6</sub>	No jettison motor. Total length = 178.9 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Nose radius = 5.2 in. Nose included angle = 60 deg.  (Same as E except aft jettison motor and toroid tanks removed.)	M. C.	FS-1 and -34	7121-01051-14	SAL-1201 JPL 21- 98	NA 62-82 SID 62-343 SID 62-246 SID 62-423
E <sub>7</sub>	Total length including forward jettison motor = 226.9 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Jettison motor has two protruding exhaust nozzles angled outward at 30 deg to the rocket centerline. Vertex semiangle exhaust nozzle = 15 deg. Diameter of exhaust nozzle base = 11.0 in.	M. C.	FS-1	7121-01051-14, -29, and -34	SAL-1201	NA 62-82 SID 62-343



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>7</sub> (Cont)	Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Nose radius = 5.2 in. Nose included angle = 60 deg.					
E <sub>8</sub>	Total length including forward jettison motor = 226.9 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Jettison motor has two protruding exhaust nozzles angled outward at 30 deg to the rocket centerline. Vertex semi-angle of exhaust nozzle = 15 deg. Diameter of exhaust nozzle base = 11.0 in. Diameter of escape rocket base = 50.5 in. Skirt flare angle = 30 deg. Nose radius = 5.2 in. Nose included angle = 60 deg.  (Same as E <sub>7</sub> except base diameter = 50.5 in.)	M. C.	FS-1	7121-01051-14, -29, -30, and -34	SAL-1201	NA 62-82 SID 62-343
E <sub>9</sub>	Reverse flow escape rocket. Total length = 239.0 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 38.0 in. Aft skirt flare angle = 33 deg. Diameter of forward skirt = 50.5 in. Forward	M. C.	FS-1	7121-01051-26	SAL-1201	NA 62-82 SID 62-343



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>9</sub> (Cont)	skirt flare angle = 30 deg. Nose radius = 5.2 in. Nose included angle = 60 deg.					
E <sub>10</sub>	Total length including forward jettison motor = 226.91 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Nose radius = 5.2 in. Nose included angle = 60 deg.	M. C.	FS-1	7121-01051-14, -33, and -34	JPL-21-98	SID 62-246 SID 62-423
	(Same as E <sub>7</sub> except jettison motor nozzles faired flush with surface.)	J. K.	FS-2	7121-01080-2, -3, -9, and -11	Ames 76 (11by11 100 (9by7) 106 (8by7)	SID 62-100 SID 62-601
		P. L.	FS-2	7121-01080-2, -3, -9, and -11	TWT-74	SID 62-353 SID 62-627
		E. F.	H-1	7121-01251-15 and -16	JPL 21- 102	SID 62-354 SID 62-628
		D. H. H. S.	PS-1	7121-01051-14, -33, and -34	JPL 20- 493B JPL 21- 100	SID 62-252 SID 62-486 SID 62-252 SID 62-548
		M. C.	FS-1	7121-01051-14, -33, and -34	SAL-1204 SAL-1201	NA 62-82 SID 62-753 NA 62-82 SID 62-753



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>10</sub> (Cont)		M. C.	FS-1	7121-01051-14, -33, and -34	JPL 20- 495	SID 62-246 SID 62-547
E <sub>11</sub>	Total length including forward jettison motor = 252.15 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Nose consists of an oblique circular cone with axis at 15 deg to rocket body centerline. The element of the cone located at the bottom in the vertical plane of symmetry is coincident with an extension of an element of the cylinder which comprises the rocket motor body. Nose radius = 2.0 in.  (Same as E <sub>10</sub> except for offset nose.)	M. C.	FS-1	7121-01051-14, -33, and -22	JPL 21-98	SID 62-246 SID 62-423
		J. K.	FS-2	7121-01080-2, -9, -11, and -12	Ames 100 (9by7)	SID 62-100 SID 62-601
		M. C.	FS-1	7121-01051-14, -33, and -22	JPL 20- 495	SID 62-246 SID 62-547
E <sub>12</sub>	Total length including forward jettison motor = 226.91 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Nose radius =	J. K.	FS-2	7121-01080-2, -3, -9, and -11	Ames 76 (11by11) 100 (9by7) 106 (8by7)	SID 62-100 SID 62-601



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>12</sub> (Cont)	5.2 in. Nose included angle = 60 deg.  (Same as E <sub>10</sub> except base diameter = 52.0 in.)	P. L.	FS-2	7121-01080-2, -3, -9, -10, and -11	TWT-74	SID 62-353 SID 62-627
		G. D.	FS-1	7121-01051-14, -33, -34, and -36	Ames 396 (2by2)	None SID 62-1027
		M. C.	FS-1	7121-01051-14, -33, -34, and -36	SAL-1204	None SID 62-753
E <sub>13</sub>	Total length including forward jettison motor = 226.91 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 41.6 in. Skirt flare angle = 30 deg. Nose radius = 5.2 in. Nose included angle = 60 deg.  (Same as E <sub>10</sub> except base diameter = 41.6 in.)	J. K.	FS-2	7121-01080-2, -3, and -9	Ames 76 (11by11) 100 (9by7) 106 (8by7)	SID 62-100 SID 62-601 SID 62-601
E <sub>14</sub>	Total length including forward jettison motor = 252.39 in. Length of jettison motor = 48.0 in.	M. C.	FS-1	7121-01051-14, -33, -34, and -35	SAL-1204	None SID 62-343



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>14</sub> (Cont)	Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 47.0 in. Skirt flare angle = 30 deg. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E <sub>10</sub> except 30 deg nose.)	J. K.	FS-2	7121-01080-2, -9, -11, and -18	Ames 81 (11by11)	None SID 62-601
E <sub>15</sub>	Total length including forward jettison motor = 252.39 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E <sub>14</sub> except base diameter = 52 in.)	M. C.	FS-1	7121-01051-14, -33, -34, -35, and -36	SAL-1204	None SID 62-343
E <sub>16</sub>	Total length including forward jettison motor = 252.39 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 65.0 in. Skirt flare angle = 30 deg.	M. C.	FS-1	7121-01051-14, -33, -34, -35, -36, and -37	SAL-1204	None SID 62-343



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E16 (Cont)	Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E14 except base diameter = 65 in.)					
E17	Total length including forward jettison motor = 252.39 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 78.0 in. Skirt flare angle = 30 deg. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E14 except base diameter = 78 in. )	M. C. J. K.	FS-1 FS-2	7121-01051-14 7121-01080-2, -9, -18, and -22	SAL-1204 Ames 81 (11by11)	None None None SID 62-601
E18	Total length including forward jettison motor = 254.91 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Nose has reverse step and is one piece that appears to have a forward section	M. C.	FS-1	7121-01051-14, -33, -34, -36, and -42	SAL-1204	None SID 62-343



## Apollo Wind Tunnel Model Nomenclature

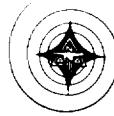
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E18 (Cont)	and an aft section. Forward section - Nose radius = 2.0 in.; length = 19.18 in.; nose included angle = 30 deg; aft diameter = 13.35 in. Aft section - Length = 26.12 in.; forward diameter = 12.0 in.; aft diameter = 26.0 in.  (Same as E15 except step nose.)					
E19	Total length including forward jettison motor = 222.60 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Nose - Length = 13.00 in.; forward diameter = 32.50 in.; aft diameter = 26.0 in.; nose radius = 52.0 in.  (Same as E15 except blunt nose.)	M. C.	FS-1	7121-01051-14, -33, -34, -36, and -41	SAL-1204	None SID 62-343
E20	Total length, including forward jettison motor = 252.89 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Nose radius = 2.0	M. C.	FS-1	7121-01051-14, -33, -34, -35, and -39	SAL-1204	None SID 62-343



## Apollo Wind Tunnel Model Nomenclature

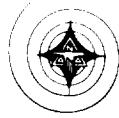
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E20 (Cont)	in. Nose included angle = 30 deg. Modified skirt-Disc added 18.7 in. forward of rocket base; diameter of disc = 65.0 in.; thickness is 2.5 in. except adjacent to flare; diameter of escape rocket base = 47.0 in.; skirt flare angle = 30 deg.  (Same as E14 with addition of 65 inch disc forward of skirt flare.)	R. U.	FS-1	7121-01051-14, -33, -34, -35, and -39	SAL-1207	None SID 62-1063
		R. U.	FS-1	7121-01051-14, -33, -34, -35, and -39	SAL-1208	None SID 62-1056
		J. K.	*FS-2	7121-01080-2, -9, -10, -11, -18, and -21	Ames 81(11 by 11) 100 (9 by 7)	None SID 62-601 SID 62-778
		J. K.	*FS-2	7121-01080-2, -9, -10, -11, -18, and -21	Ames 106(8 by 7)	None SID 62-601 SID 62-778
		D. C.	*FS-2	7121-01080-2, -9, -10, -11, -18, and -21	NAAL-485	SID 62-738 SID 62-1128
		R. H. J. K.	*FS-2	7121-01080-2, -9, -10, -11, -18, and -21	Ames 112 (8 by 7) 108 (9 by 7)	SID 62-1007 SID 63-145 85 (11 by 11)

\*FS-2-Same as above except base diameter = 52.0 in. and total length = 252.39 in.



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E21	<p>Total length including forward jettison motor = 252.39 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Canard on nose - Tip chord = 11.0 in.; root chord at centerline = 31.0 in.; span = 52.5 in.; total area = 7656 square feet; aspect ratio = 2.50; incidence angle = -4 deg.; rotation point = 25.75 in. aft of rocket nose; hexagonal airfoil section. Rocket nose radius = 2.0 in. Nose included angle = 30 deg.</p> <p>(Same as E15 except canard added.)</p>	M. C.	FS-1	7121-01051-14, -33, -34, -36, and -43	SAL-1204	None SID 62-343
E22	<p>Total length including forward jettison motor = 252.89 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Nose radius = 2.0 in. Nose included angle = 30 deg. Modified skirt-Disc added 18.7 in. forward of rocket base; diameter of disc = 52.0 in.; thickness = 2.5 in. Diameter except adjacent to flare. Diameter</p>	M. C.	FS-1	7121-01051-14, -33, -34, -35, and -40	SAL-1204	None SID 62-343



Apollo Wind Tunnel Model Nomenclature

Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E22 (Cont)	of escape rocket base = 47.0 in. Skirt flare angle = 30 deg.  (Same as E14 with addition of 52 in. disc forward of flared skirt.)	A.G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -44	SAL-1204	None
E23	Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Circular disc attached to escape rocket base; thickness of disc = 2.5 in.; diameter of disc = 65.0 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E15 except 65 in. disc added to base.)	J.K.	*FS-2	7121-01080-2, -9, -14, -15, and -18	Ames 106(8 by 7) 100(9 by 7)	None SID 62-601 SID 62-778
	G.D.	FS-1	7121-01051-14, -33 through -36, and -44	Ames 396(2 by 2)	None SID 62-1027	
P.L.	*FS-2	7121-01080-2, -9, -14, -15, and -18	TWT-74	SID 62-353 SID 62-627		
J.K.	*FS-2	7121-01080-2, -9, -14, -15, and -18	Ames 81(11 by 11)	None SID 62-601 100 (9 by 7)		

\*FS-2 - Same as above except base diameter = 51.85 in.; skirt flare angle = 34 deg; ring forward of flared skirt, diameter of ring = 28.95 in.



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E24	Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Circular disc attached to escape rocket base; thickness of disc = 2.5 in.; diameter of disc = 78.0 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E15 except 78 in. disc added to base.)	A. G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -45	SAL-1204	None SID 62-343
E25	Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Circular disc attached to escape rocket base; thickness of disc = 2.5 in.; diameter of disc = 91.0 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E15 except 91 in. disc added to base.)	A. G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -46	SAL-1204	None SID 62-343
	P. L. *FS-2			7121-01080-2, -9, -13, -15, and -18	TWT-74	SID 62-353 SID 62-627

\*FS-2 - Same as above except base diameter = 51.85 in.; skirt flare angle = 34 deg.; ring forward of flared skirt; diameter of ring = 29.85 in.



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E26	Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Circular disc attached to escape rocket base; thickness of disc = 2.5 in.; diameter of disc = 104.0 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E15 except 104-in. disc added to base.)	A. G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -47	SAL-1204	None SID 62-343
E27	Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Clipped circular disc attached to escape rocket base; thickness of disc = 2.5 in.; diameter of disc = 91.0 in.; height of clipped portion of disc = 10.4 in. Nose radius = 2.0 in. Nose included angle = 30 deg.	A. G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -48	SAL-1204	None SID 62-343



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E27 (Cont)	(Same as E25 except 10.4 in. clipped off bottom of disc.)					
E28	Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Clipped circular disc attached to escape rocket base; thickness of disc = 2.5 in.; diameter of disc = 91.0 in.; height of clipped portion of disc = 15.6 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E25 except 15.6 in. clipped off bottom of disc.)	A.G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -49	SAL-1204	None SID 62-343
E29	Total length including forward jettison motor = 254.88 in. Length of jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Clipped circular disc attached to escape	A.G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -50	SAL-1204	None SID 62-343



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>29</sub> (Cont)	rocket base; thickness of disc = 2.5 in.; diameter of disc = 91.0 in.; height of clipped portion of disc = 19.5 in. Nose radius = 2.0 in. Nose included angle = 30 deg. (Same as E25 except 19.5 in. clipped off bottom of the disc.)	P.L.	*FS-2	7121-01080-2, -9, -15, -17, and -18	TWT-74	None SID 62-627
*FS-2:	Same as above except base diameter = 51.85 in.; skirt flare angle = 34 deg.; ring forward of flared skirt; diameter of ring = 29.85 in.					
E <sub>30</sub>	Total length including forward jettison motor = 25 $\frac{1}{4}$ .88 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. Eccentric circular disc attached to escape rocket base; distance from center of disc to centerline of rocket motor = 5.2 in.; thickness of disc = 2.5 in.; diameter of disc = 91.0 in. Nose radius = 2.0 in. Nose included angle = 30 deg. (Same as E25 except center of disc located 5.2 in. above centerline of rocket.)	A.G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -53	SAL-1204	None SID 62-343

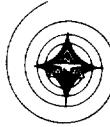


Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>31</sub>	<p>Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in.</p> <p>Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in.</p> <p>Skirt flare angle = 30 deg.</p> <p>Eccentric circular disc attached to escape rocket base. Distance from center of disc to centerline of rocket motor = 7.8 in.; thickness of disc = 2.5 in.; diameter of disc = 91.0 in.</p> <p>Nose radius = 2.0 in. Nose included angle = 30 deg.</p> <p>(Same as E<sub>25</sub> except center of disc located 7.8 in. above centerline of rocket.)</p>	A. G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -54	SAL-1204	None SID 62-343
E <sub>32</sub>	<p>Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in.</p> <p>Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.0 in.</p> <p>Skirt flare angle = 30 deg. Eccentric circular disc attached to escape</p>	A. G.	FS-1	7121-01051-14, -33, -34, -35, -36, and -55	SAL-1204	None SID 62-343
		P. L.	*FS-2	7121-01080-2, -9, -15, -18, and -19	TWT-74	None SID 62-627

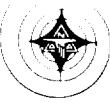


Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>32</sub> (Cont)	<p>rocket base. Distance from center of disc to centerline of rocket motor = 10.4 in.; thickness of disc = 2.5 in.; diameter of disc = 91.0 in. Nose radius = 2.0 in. Nose included angle = 30 deg.</p> <p>(Same as E25 except center of disc located 10.4 in. above centerline of rocket.)</p> <p>*FS-2 - Same as above except base diameter = 51.85 in.; skirt flare angle = 34 deg.; ring forward of flared skirt; diameter of ring = 29.85 in.</p>					
E <sub>33</sub>	<p>Total length including forward jettison motor = 252.39 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 91.0 in. Skirt flare angle = 34 deg. Nose radius = 2.0 in. Nose included angle = 30 deg.</p> <p>(Same as E14 except flared skirt enlarged with base diameter = 91 in.)</p>	A.G.	FS-1	7121-01051-14, -33, -34, -35, and -51	SAL-1204 None SID 62-343	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E34	Total length including forward jettison motor = 252.39 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 104.0 in. Skirt flare angle = 34 deg. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E14 except flared skirt enlarged with base diameter = 104 in.)	A.G.	FS-1	7121-01051-14, -33, -34, -35, and -52	SAL-1204	None SID 62-343
E35	Total length = 257.28 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg. 55 min. Nose radius = 2.0 in. Nose included angle = 30 deg. There is a 28.87-in.-diameter ring around the intersection of the flared skirt with the rocket.  *FS-2- Same as above except total length = 252.39 in. ** H-2- Same as above except base diameter = 54.82 in.	J.K.  C.B.  R.B.  W.B.	*FS-2  FD-2  PSTL- D.H.  **H-2	7121-01080-2, -9, -18 and - 7121-01061-3 and -4 7121-01173-17, -18, and -19 7121-01254-13, -14, -15, and -16	Ames  LUPWT- 374 TWT-77  AEDC Tunnel B 304244- 400	None 106(8 by 7) SID 62-601  None SID 62-1074  SID 62-745 SID 62-929 SID 62-1151  SID-62-614 Tunnel B SID 62-993



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>35</sub> (Cont)	**HL-1 -Same as above except base diameter = 54.82 in.  **HL-1B-Same as above except base diameter = 54.82 in.	J.K.	*FS-2	7121-01080-2, -9, -18, and -7)	Ames 106(8 by 7)	None SID 62-601 SID 62-778
		W.B.	**H-2	7121-01254-13, -14,-15, and -16	AEDC Tunnel C 304244- 500	SID 62-614 SID 62-993
		J.W.	FSL-1	LH-100-13 7121-01136-13	Ames 87(11 by 11)	SID 62-805 SID 62-1143
		D.C.	*FS-2	7121-01080-2, -9, -18, and -485	NAAL- 485	SID 62-738 SID 62-1128
		J.S.	PS-3	7121-01163-12, -13, and -14	AEDC Tunnel A 304244- 300	SID 62-752 SID 62-1137
		M.C. E.P.	SD-1	7121-01210-2, -3, -4, and -5	AEDC Tunnel B 304244- 400	SID 62-752 SID 62-1137
					LTDT 48 (16 by 16)	SID 62-841 SID 63-33



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>35</sub> (Cont)		A.G.	FS-3	7121-01063-15, -16, and -17	AEDC Tunnel A 304244- 300	SID 62-709 SID 62-1057
B. C.	FSL-1	LH-100-13 7121-01136-13	AEDC Tunnel A 304244- 300	SID 62-806 SID 62-1144		
			AEDC Tunnel B 304244- 400	SID 62-806 SID 62-1144		
E. F.	PSTL -1	7121-01173-17, -18, and -19	Ames 102(14 by 14)	SID 62-799 SID 63-1480		
D. C.	FSL-1	LH-100-13 7121-01136-13	TWT-84	SID 62-670 SID 63-35		
W. B. D. E.	**HL- 1	7121-01254-13 -14, -15, and -16	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688		
G. U. W. B.	**HL-1	7121-01254-13, -14, -15, and -16 7121-01261-4	LUPWT- Rey-451	SID 62-1011 SID 63-683		



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>35</sub> (Cont)	G. U. **HL- 1B			7121-01268-5	AEDC Tunnel C -023	S&ID IOL 223-140-63 -023
E <sub>36</sub>	Total length = 252.39 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.0 in. Skirt flare angle = 30 deg. There is a circular disc encircling escape tower T <sub>9</sub> 84.67 in. aft of escape rocket base; diameter of disc = 65.00 in.; thickness = 2.38 in. Nose radius = 2.0 in. Nose included angle = 30 deg.	J. K.	FS-2	7121-01079-11 and -13 7121-01080-2, -9, -10, -11, and -18	Ames 76(11 by 11) 100(9 by 7) 106(8 by 7)	SID 62-100 Not tested
(Same as E15 except 65.0 in. diameter disc aft of escape rocket base.)						
E <sub>37</sub>	Total length including forward jettison motor = 252.39 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 51.85 in. Skirt flare angle = 34 deg. Circular disc encircling escape tower T <sub>9</sub> is 84.67 in. aft of escape rocket base;	J. K.	FS-2	7121-01079-11 and -12 7121-01080-2, -9, -15, and -18	Ames 81(11 by 11) 100(9 by 7)	None SID 62-601



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>37</sub> (Cont)	diameter of disc = 78.0 in.; thickness of disc = 2.38 in. Nose included angle = 30 deg. Nose radius = 2.0 in.  (Same as E15 except 78-in.-diameter disc attached to tower 84.67 in. aft of rocket base.)					
E <sub>38</sub>	Total length including forward jettison motor = 254.88 in. Length of forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 51.85 in. Skirt flare angle = 34 deg. Clipped circular disc attached to base of rocket; height of clip = 6.0 in.; diameter of disc = 65.0 in.; thickness = 2.5 in. Nose included angle = 30 deg. Nose radius = 2.0 in.  (Same as E23 except 6.0 in. clipped off bottom of disc.)	J. K.	FS-2	7121-01080-2 -9, -15, -18, and -20	Ames 81(11 by 11)	None SID 62-601
E <sub>39</sub>	Total length = 254.88 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base	J. K.	FS-2	7121-01079-11 and -12 7121-01080-2, -9, -14, -15, and -18	Ames 81(11 by 11) 100(9 by 7)	None SID 62-601 SID 62-601 SID 62-778



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>39</sub> (Cont)	= 51.85 in. Skirt flare angle = 34 deg. There is a circular disc encircling escape tower T <sub>9</sub> 84.67 in. aft of escape rocket base; diameter of disc = 78.0 in.; thickness = 2.38 in. There is a circular disc attached to rocket base; diameter of disc = 65.0 in.; thickness = 2.5 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E <sub>37</sub> except 65.0-in. - diameter disc added to rocket base.)					
E <sub>40</sub>	Total length = 257.28 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg. 55 min. There is a circular disc located 19.16 in. forward of escape rocket base; diameter = 65.0 in.; thickness = 2.27 in. Nose radius = 2.0 in. Nose included angle = 30 deg.	C. B. R. B. D. H.	F D-2 PSTL -1	7121-01061-3 -4, and -6	LUPWT-374 TWT-77 -18, -19, and disc	None SID 62-1074 SID 62-745 SID 62-929 SID 62-1151 AEDC Tunnel B 304244-400 SID 62-993



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>40</sub> (Cont)	(Same as E <sub>35</sub> except 65.0-in.-diameter disc forward of rocket base.)	W. B.	*H-2	7121-01254-13 thru -16 and -29	AEDC Tunnel C 304244-500	SID 62-614 SID 62-993
	*H-2 - Same as above except base diameter = 54.82 in. and thickness of disc = 1.11 in.	E. F.	PSTL -1	7121-01173-17, -18, -19, and disc	Ames 102(14 by 14)	SID 62-799 SID 63-1480
		J. W.	FSL-1	LH-100-13 and disc 7121-01136-13 and disc	Ames 87(11 by 11) 105(9 by 7) 110(8 by 7)	SID 62-805 SID 62-1143
		B. C.	FSL-1	LH-100-13 and disc 7121-01136-13 and disc	AEDC Tunnel A 304244-300 AEDC Tunnel B 304244-400	SID 62-806 SID 62-1144 SID 62-806 SID 62-1144



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E40 (Cont)		D. C.	FSL-1	LH-100-13 and disc 7121-01136-13 and disc	TWT-84	SID 62-670 SID 63-35
		B. C.	FSL-1	LH-100-13 and disc 7121-01136-13 and disc	NACAL-104	SID 62-669 SID 62-1436
E41	Total length = 259.78 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg. 55 min. Nose radius = 2.0 in. Nose included angle = 30 deg. A 28.87-in.-diameter ring is around the intersection of the flared skirt with the rocket. Disc is attached to rocket base; diameter of disc = 65.0 in.; thickness = 2.50 in.  (Same as E35 except 65.0-in. - diameter disc added to rocket base.  *H-2 - Same as above except total length = 258.39 in., rocket base diameter = 54.82 in. and thickness of disc = 1.11 in.	D. H. R. B.	PSTL -1	7121-01173-17, -18, -19, and -20	TWT-77	SID 62-745 Not tested
		W. B.	*H-2	7121-01254-13, -14, -15, -16, and -28	AEDC Tunnel B 304244- 400	SID 62-614 SID 62-993
					AEDC Tunnel C 304244- 500	SID 62-614 SID 62-993

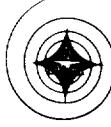


Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E42	Total length = 257.28 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.82 in. Skirt flare angle = 36 deg.55 min. A 28.87-in.-diameter ring located 19.16 in. forward of rocket base is around the intersection of the flared skirt with the rocket. A 65.0 in. diameter disc is located 18.00 in. forward of rocket base; thickness of disc = 0.89 in. An additional ring fairing extends from aft end of 65.0-in.-diameter disc to flared skirt; diameter of fairing = 51.09 in. Nose radius = 2.0 in. Nose included angle = 30 deg.	W. B. D. E.	HL-1	7121-01254-13, -14, -15, and -16 7121-01261-4	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688

(Same as E35 except 65.0-in.-diameter disc; fairing from disc to skirt and base diameter = 54.82 in.)



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E43	<p>Total length = 279.50 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.82 in. Skirt flare angle = 36 deg 55 min. A 28.87 in. diameter ring, 19.16 in. forward of rocket base, is around the intersection of the flared skirt with the rocket. Nose radius = 2.0 in. Nose included angle = 30 deg.</p> <p>(Same as E35 except total length = 279.50 in. and rocket base diameter = 54.82 in.)</p>	W.B. D.E.	HL-1	7121-01254-13 through -16 7121-01261-3	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688
E44	<p>Total length = 257.28 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg 55 min. There is a 78.0-in.-diameter disc 19.16 in. forward of rocket base; thickness of disc = 2.27 in. Nose radius = 2.0 in. Nose included angle = 30 deg.</p> <p>(Same as E35 except 78.0-in.-diameter disc forward of rocket base.)</p>	E.F.	PSTL- 1	7121-01173-17, -18, -19, and disc	Ames 102 (14 by 14)	SID 62-799 SID 63-1480



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E45	Total length including forward jettison motor = 257.28 in. Forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg 55 min. There is a 91.0-in.-diameter disc located 19.16 in. forward of rocket base; thickness of disc = 2.27 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except 91.0-in. disc forward of rocket base.)	E. F.	PSTL-1	7121-01173-17, -18, -19, and disc	Ames 102 (14 by 14)	SID 62-799 Not tested
E46	Total length including forward jettison motor = 279.50 in. Forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 54.82 in. Skirt flare angle = 36 deg 55 min. A 28.87-in.-diameter ring, 19.16 in. forward of rocket base, is around the intersection of the flared skirt and the rocket. A 65.00-in.-diameter	W. B. D. E.	HL-1	7121-01254-13 thru -16 7121-01261-3 and -4	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688

## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E46 (Cont.)	disc is 18.00 in. forward of rocket base. Thickness of disc = 0.89 in. An additional ring fairing extends from aft end of 65.0 in. diameter disc to flared skirt; diameter of fairing = 51.09 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except 65.0 in. diameter disc, fairing from disc to skirt, rocket base diameter = 54.82 in., and total length = 279.50 in.)					
E47	Total length including forward jettison motor = 279.65 in. Forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 52.33 in. Skirt flare angle = 34 deg. A 28.88-in. - diameter ring is around the intersection of the flared skirt with the rocket. Ring is located 19.13 in. forward of skirt base. Nose radius = 2.0 in. Nose included angle = 30 deg. There are four fairings	A.G.	FSJ-1	7121-01104-3, -4, -6, and -20	Langley 191(16 by 16)	SID 62-876 SID 63-754

Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E47 (Cont)	on the skirt extending from the rocket base to the 28.88-in.-diameter ring. Angle made by top of fairing and rocket centerline = 37 deg 41 min. The first fairing is located on upper centerline and the others at 90 deg intervals. Height of fairing (at skirt base) = 1.32 in. Back of fairing extends to top of 28.88-in.-diameter ring. Width of top = 1.51 in. Width of base = 4.14 in. at skirt base and 1.51 in. at ring.					
E48	Total length = 274.81 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 51.85 in. Skirt flare angle = 34 deg. There is a 28.95-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.16 in. forward of rocket base. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except length = 274.81 in.; rocket base diameter = 51.85 in.; skirt flare angle = 34 deg, and ring diameter = 28.95 in.)	R. H. J. K.	FS-2	7121-01089-3 and -8	Ames 112 (8 by 7) 108 (9 by 7) 7121-01080-15 85 (11 by 11)	SID 62-1007 SID 63-145



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E49	Total length = 274.81 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 51.85 in. Skirt flare angle = 34 deg. There is a 28.95-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.16 in. forward of rocket base. A 65.0-in.-diameter disc is located 18.0 in. forward of rocket base. Thickness of disc = 1.25 in. Nose radius = 2.0 in. Nose included angle = 30 deg. An additional fairing, 51.0 in. diameter, extends from aft end of 65.0-in.-diameter disc to flared skirt.	R. H. J.K.	FS-2	7121-01089-3, -7, and -8 7	Ames 112 (8 by 7) 108 (9 by 7) 85 (11 by 11)	SID 62-1007  SID 63-145

(Same as E35 except length = 274.81 in.; rocket base diameter = 51.85 in.; skirt flare angle = 34 deg; 28.95-in.-diameter ring; 65.0-in.-diameter disc, and additional fairing.)



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E50	Total length including forward jettison motor = 257.28 in. Forward jettison motor = 48.0 in. Diameter of escape rocket and jettison motor = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg 55 min. There is a 78.0-in. serrated circular disc 19.16 in. forward of rocket base. Thickness of disc = 2.27 in. Tip of teeth begin on upper centerline ( $\phi = 0$ deg) and are at 15 deg intervals. Innermost angle (of cut-out) = 90 deg. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except 78.0-in. serrated disc forward of flared skirt.)	E. F.	PSTL-1	7121-01173-17, -18, -19, and disc	Ames 102 (14 by 14)	SID 62-799 SID 63-1480



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E51	Total length = 279.65 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg 55 min. There is a 28.87-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.16 in. forward of rocket base. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except total length = 279.65 in.)	C. B. C. H.	FD-2 PSTL-1	7121-01061-3 7121-01072-11	LUPWT-398 Ames 111 (8 by 7) C.O. 7121-161 86 (11 by 11)	None SID 63-96 SID 62-799 SID 62-1353 -1 and -2 SID 63-1480
		R. B.	PSTL-1	7121-01173-17 and -19 C.O. 7121-161	Ames 106 (9 by 7)	SID 62-799 SID 62-809 SID 62-1353 -1 and -2 SID 63-1480
		C. B. C. M.	FD-2	7121-01061-3 7121-01072-11	LTPT 258 (8 by 8)	None SID 63-163
		C. M.	FD-2	7121-01061-3 7121-01072-11	LUPWT-411	None SID 63-197



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E52	<p>Total length = 279.65 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg 55 min. There is a circular disc located 19.16 in. forward of the rocket base; diameter of disc = 65.0 in.; thickness = 2.0 in. There is an additional ring fairing, 51.08 in. diameter, extending from aft end of 65.0 in. diameter disc to flared skirt. Nose radius = 2.0 in. Nose included angle = 30 deg.</p> <p>(Same as E35 except total length = 279.65 in., 65.0-in.-diameter disc, and 51.08 in. diameter ring fairing).</p>	C. B. R. B. G. H.	FD-2 PSTL-1	7121-01061-3, -4, and -6 7121-01072-11 C. O. 7121-161 7121-01173-17, -19, and disc	LUPWT-398 Am es 111 (8 by 7) 86 (11 by 11)	None SID 63-96 SID 62-799 SID 62-1353 -1 and -2 SID 63-1480
		R. B.	PSTL-1	C. O. 7121-161 7121-01173-17, -19, and disc	Am es 106 (9 by 7)	SID 62-799 SID 62-809 SID 62-1353 -1 and -2 SID 63-1480
		C. B. C. M.	FD-2	7121-01061-3, -4, and -6 7121-01072-11	LTPT 258 (8 by 8)	None SID 63-163
		C. M.	FD-2	7121-01061-3, -4, and -6 7121-01072-11	LUPWT-411	None SID 63-197



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E53	Total length = 279.67 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg 55 min. There is a 28.89-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.16 in. forward of rocket base. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except total length = 279.67 in.)	R. U. P.L.	PS-3	7121-01163-12 and -14 7121-01168-11	TWT-82	None SID 62-1435
E54	Total length = 279.67 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.73 in. Skirt flare angle = 34 deg. There is a 28.89-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.16 in. forward of rocket base. A 65.00-in.-diameter disc is located 18.0 in. forward of rocket base; thickness of disc = 1.24 in. An additional fairing, 51.07 in. diameter, extends from aft end of 65.00-in.-diameter disc to flared skirt. Nose radius = 2.0 in. Nose included angle = 30 deg.	R. U. P.L.	PS-3	7121-01163-12 7121-01168-11 and -13	TWT-82	None SID 62-1435



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E54 (Cont.)	(Same as E35 except length = 279.67 in.; 65.0 diameter disc; 34 deg skirt; skirt diameter = 52.73 in.; fairing from disc to skirt.)					
E55	Total length = 279.64 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.73 in. Skirt flare angle = 35 deg. There is a 28.89-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.16 in. forward of rocket base. Nose radius = 2.0 in. Nose included angle = 30 deg.	C. B. D.E.	FD-3 HL-1C	7121-01075-10, -19, and -21 7121-01268-5	AEDC Tunnel A 304244-300	SID 62-1299 SID 63-616
	(Same as E35 except total length = 279.64 in., base diameter = 52.73 in., and skirt angle = 35 deg.)					
E56	Total length = 279.64 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.73 in. Skirt flare angle = 35 deg. There is a 28.89-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.16 in. forward of rocket base. A 65.0-in. -	C. B. C. M.	FD-3 FD-3	7121-01075-10, -19, -23, and -25 7121-01075-10, -19, -23, and -25	AEDC Tunnel A 304244-300 AEDC Tunnel A VT-1244- A00	SID 62-1299 SID 63-616 SID 62-1299 SID 63-616



## Apollo Wind Tunnel Model Nomenclature

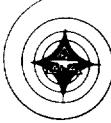
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E56 (Cont)	diameter disc is located 18.0 in. forward of rocket base; thickness of disc = 1.25 in. An additional ring fairing, 51.07 in. diameter, extends from aft end of 65.0-in.-diameter disc to flared skirt. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except length = 279.64 in.; 65.0 in. diameter disc; 35 deg skirt, skirt diameter = 52.73 in.; and fairing from disc to skirt.)					
E57	Total length = 257.28 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36deg 55 min. There is a 28.87-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.16 in. forward of rocket base. A 65.0-in.-diameter disc is located 18.0 in. forward of rocket base. Thickness of disc = 0.89 in. An additional fairing extends from aft end of 65.0-in.-diameter disc to flared skirt; diameter of fairing	M. C. E. P.	SD-1 and -10	7121-01210-2, -3, -4, -5, and -10	LTDT 48(16 by 16)	SID 62-841 SID 63-33



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
					Pretest and Data Reports
E57 (Cont)	= 51.09 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except 65.0-in.-diameter disc forward of flared skirt and fairing from disc to skirt.)				
E58	Total length = 279.65 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 54.6 in. Skirt flare angle = 36 deg 55 min. A 78.0-in.-diameter disc is located 19.16 in. forward of rocket base; thickness of disc = 2.27 in. Nose radius = 2.0 in. Nose included angle = 30 deg.  (Same as E35 except total length = 279.65 in. and 78.0-in.-diameter disc forward of rocket base.)	R. B.	PSTL-1	C.O. 7121-161 7121-01173-17, -19, and disc 7)	Ames 106 (9 by 7)  SID 62-799 SID 62-809 SID 62-1353 -1 and -2 SID 63-1480

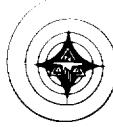


Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E59	Total length = 279.65 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.33 in. Skirt flare angle = 34 deg. There is a 28.88-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.13 in. forward of rocket base. A 65.00-in.-diameter disc is located 18.00 in. forward of rocket base; thickness = 1.25 in. There is an additional ring fairing extending from aft end of 65.00-in.-diameter disc to flared skirt; diameter = 51.08 in. There are four fairings on the skirt extending from the rocket base to the ring fairing. Angle made by top of fairing and rocket centerline = 37 deg 41 min. The first fairing is located on upper centerline, $\phi = 0$ deg, and the others at 90-deg intervals. Nose radius = 2.0 in. Nose included angle = 30 deg.	A.G.	F SJ-1	7121-01104-3, -4, -19, and -20	Langley 191(16 by 16)	SID 62-876 SID 63-754



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>60</sub>	Total length = 279.67 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.73 in. Skirt flare angle = 34.0 deg. There is a 28.89 in. diameter ring around the intersection of the skirt with the rocket. Ring is located 19.14 in. forward of the escape rocket base. There are two raceways on the surface of the main rocket body (see sketch for dimensions). Nose radius = 2.0 in. Nose included angle = 30.0 deg.	R. H. D. C.	FS-2	7121-01080-18 7121-01089-3 7121-01091-3 and Raceways	Ames 001(11 by 11) 001(9 by 7) 001(8 by 7)	SID 63-28 SID 63-448



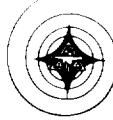
## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>61</sub>	Total length = 279.67 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.73 in. Skirt flare angle = 34.0 deg. There is a 28.89-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.14 in. forward of escape rocket base. A 65.00-in.-diameter disc with a 0.49-in. flange is located 18.0 in. forward of escape rocket base; thickness of disc = 1.40 in.; thickness of flange = 0.24 in. There is a 51.06 in. diameter ring fairing extending from aft end of 65.0-in.-diameter disc to flared skirt. Nose radius = 2.0 in. Nose included angle = 30.0 deg.	R. H. D.C.	FS-2	7121-01080-18 7121-01089-3 7121-01091-3 and -10	Ames 001(11 by 11) 001(9 by 7) 001(8 by 7)	SID 63-28 SID 63-448
E <sub>62</sub>	Total length = 279.67 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.73 in. Skirt flare angle = 34.0 deg. There is a 28.89 in. diameter ring around the intersection of the skirt with the rocket. Ring is located 19.14 in. forward of the escape rocket base.	R. H. D.C.	FS-2	7121-01080-18 7121-01089-3 7121-01091-3, -10 and Raceways	Ames 001(11 by 11) 001(9 by 7) 001(8 by 7)	SID 63-28 SID 63-448



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E62 (Cont)	A 65.0 in. diameter disc with a 0.49 in. flange is located 18.0 in. forward of escape rocket base; thickness of disc = 1.40 in.; thickness of flange = 0.24 in. There is a 51.06 in. diameter ring fairing extending from aft end of 65.0 in. diameter disc to flared skirt. There are two raceways on the surface of the main rocket body (see sketch for dimensions). Nose radius = 2.0 in. Nose included angle = 30.0 deg.					



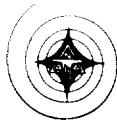
## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>63</sub>	Total length = 279.67 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.73 in. Skirt flare angle = 34 deg. There is a 29.00-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.13 in. forward of rocket base. There are four fairings on the forward portion of the skirt. Fairings are located at $\phi$ = 45, 135, 225, and 315 deg. There are four rocket nozzles angled outward at 35 deg from rocket centerline. Rockets are located aft of the escape rocket base and at $\phi$ = 0, 90, 180, and 270 deg (see sketch for dimensions). There are two forward jettison nozzles. One is located on top centerline, $\phi$ = 0 deg, and the other on the lower centerline, $\phi$ = 180 deg. The jettison nozzles are angled outward at 30 deg to the rocket centerline. Nozzles protrude 1.0 in. above rocket mold line. Nozzle apex semiangle = 10 deg. Apex is located 75.71 in. aft of escape rocket nose. Nose radius = 2.0 in. Nose included angle = 30 deg.	J. D.	FS-3	7121-01093-4, -6 through -11	AEDC Tunnel A VT-1244- A00	SID 62-709 SID 63-902 S&ID IOL 223-140-63-022 SID 63-650
		J. S.	PS-3	7121-01095-6 through -10 7121-01169-7 and -9	AEDC Tunnel A VT-1244- A00	
		C. M.	*FD-5	7121-01121-2 through -8	AEDC Tunnel A VT-1244- A00	SID 63-316 SID 64-1015
		C. B. C. M.	*FD-5	7121-01121-2 through -8	Ames 024 (11 by 11)	SID 63-472
		J. S.	PS-3	7121-01095-6 through -10 7121-01169-7 and -9	LTP T 275 (8 by 8)	SID 63-457



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E63 (Cont)	*FD-5 - Same as E63 except there are no fairings on the skirt; aft nozzle dimensions vary; and vertex of forward jetison nozzle is located 76.15 in. aft of escape rocket nose.					
E64	Total length = 279.67 in. Diameter of escape rocket = 26.0 in. Diameter of escape rocket base = 52.73 in. Skirt flare angle = 34 deg. There is a 29.0-in.-diameter ring around the intersection of the skirt with the rocket. Ring is located 19.14 in. forward of the escape rocket base. A 65.0-in.-diameter disc is located 18.0 in. forward of the escape rocket base; thickness = 1.40 in. An additional fairing extends from aft end of 65.0-in.-diameter disc to flared skirt; diameter = 51.07 in. There are four cutouts on the fairing; length = 10.22 in.; width = 5.56 in.; radial locations, $\phi$ = 45, 135, 225, and 315 deg. There are four rocket nozzles angled outward at 35 deg to rocket centerline. Rockets are located aft of the escape rocket base	J. D.	FS-3	7121-01093-4 through -10	AEDC Tunnel A VT-1244-A00	SID 62-709 SID 63-902



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E64 (Cont)	and at $\phi = 0, 90, 180,$ and $270 \text{ deg.}$ (See sketch for dimensions). There are two forward jettison nozzles; one is located on top centerline, $\phi = 0 \text{ deg,}$ and the other on the lower centerline, $\phi = 180 \text{ deg.}$ The jettison nozzles are angled outward at $30 \text{ deg to rocket centerline.}$ Nozzles protrude $1.0 \text{ in. above rocket mold line.}$ Nozzle apex semiangle = $10 \text{ deg.}$ Apex is located $75.71 \text{ in. aft of escape rocket nose.}$ Nose radius = $2.0 \text{ in.}$ Nose included angle = $30 \text{ deg.}$					
E65	Total length = $279.67 \text{ in.}$ Diameter of escape rocket = $26.0 \text{ in.}$ Diameter of escape rocket base = $52.73 \text{ in.}$ Skirt flare angle = $34 \text{ deg.}$ There is a $29.0\text{-in.}$ -diameter ring around the intersection of the skirt with the rocket. Ring is located $19.13 \text{ in.}$ forward of the escape rocket base. There are four fairings on the forward portion of the skirt; length (measured along the back) = $15.78 \text{ in.}$ ; maximum width = $4.0 \text{ in.}$ ; minimum width = $1.51 \text{ in.}$ ; height (at maximum width) = $1.1 \text{ in.}$ ; radial locations,	J. M. J. D.	FSJ-3	7121-01144-13, -15, -17, and -21	AEDC Tunnel A  VT-1244- A00	SID 63-352  SID 63-352



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E <sub>65</sub> (Cont)	$\phi = 45, 135, 225$ , and $315$ deg. There are two forward jettison nozzles; one is located on top centerline, $\phi = 0$ deg, and the other on the lower centerline, $\phi = 180$ deg. The jettison nozzles are angled outward at $30$ deg to rocket centerline. Nozzles protrude $1.0$ in. above rocket mold line. Nozzle apex semi-angle = $10$ deg. Apex is located $75.70$ in. aft of escape rocket nose. Nose radius = $2.0$ in. Nose included angle = $30$ deg.					SID 63-1027 37(9 by 7) 37(11 by 11)
E <sub>66</sub>	Total length = $279.67$ in. Diameter of escape rocket = $26.0$ in. Diameter of escape rocket base = $52.73$ in. Skirt flare angle = $34$ deg. There is a $29.0$ in. diameter ring around the intersection of the skirt with the forward of the escape rocket base. There are four fairings on the conical surface of the skirt; length (measured along the surface) = $13.64$ in.; maximum width = $5.45$ in.; minimum width = $1.51$ in.; height (at maximum width) = $2.21$ in.; radial	J.S. P.B.	PSTL -2	7121-01190-2 through -6, -8, and -10	Ames	SID 63-1027 37(9 by 7) 37(11 by 11)



## Apollo Wind Tunnel Model Nomenclature

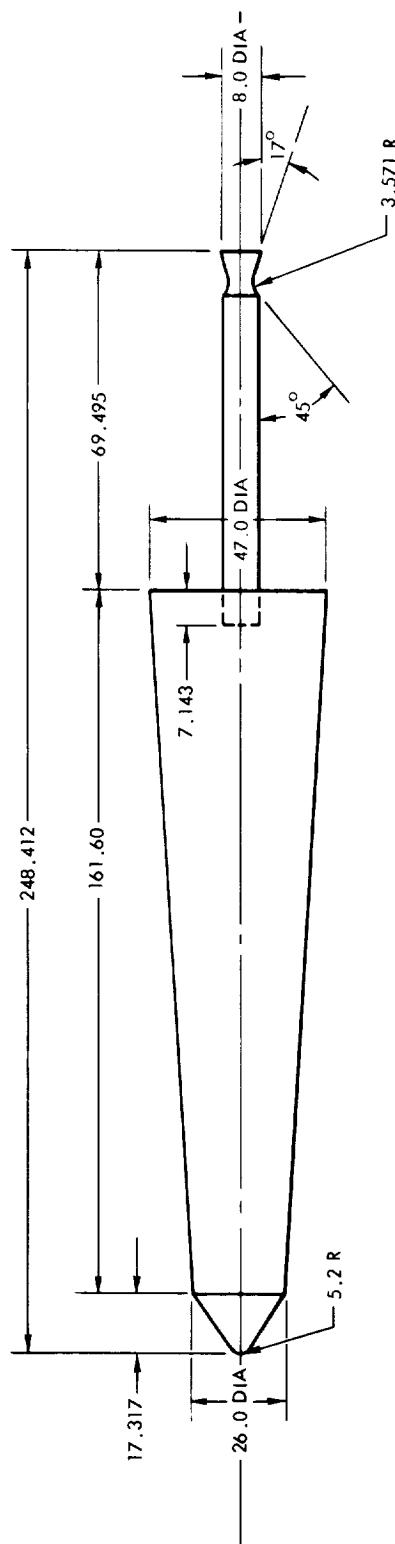
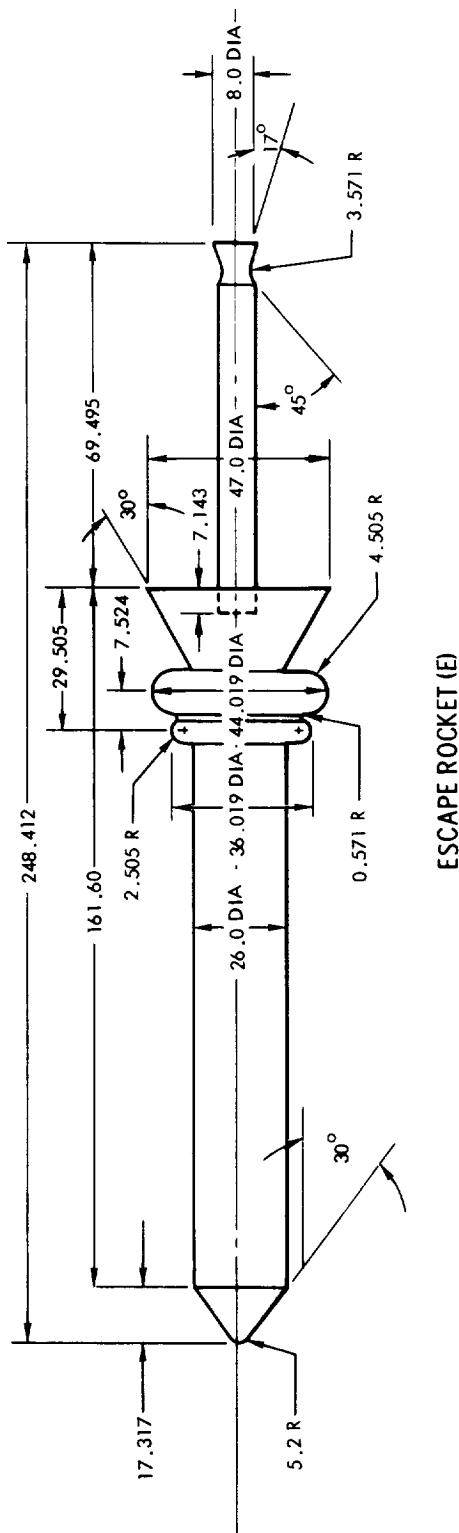
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E66 (Cont)	locations, $\phi = 45, 135, 225$ , and $315$ deg. There are four rocket nozzles which are angled outward at $35$ deg to rocket centerline. Rockets are located aft of the escape rocket base and radially at $\phi = 0, 90, 180$ , and $270$ deg (see sketch for dimensions). There are two forward jettison nozzles; one is located on top centerline, $\phi = 0$ deg and the other on the lower centerline, $\phi = 180$ deg. The jettison nozzles are angled outward at $30$ deg to rocket centerline and protrude one in. above rocket mold line. Nozzle apex semiangle = $10$ deg. Apex is located $76.16$ in. aft of escape rocket nose. There are two (2) raceways on the surface of the main rocket body (see sketch for dimensions). Nose radius = $2.0$ in. Nose included angle = $30$ deg.					
E67	Total length = $279.67$ in. Diameter of escape rocket = $26.0$ in. Diameter of escape rocket base = $52.73$ in. Skirt flare angle = $34$ deg. There is a $28.89$ in. diameter ring around the	D. C.	FS-2	7121-01048-4, -5, and -6	TWT-92 7121-01080-18	None SID IOL 696-710-140 -64-003



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
E67 (Cont)	<p>intersection of the skirt with the rocket. Ring is located 19.14 in. forward of the escape rocket base. There are four fairings on the conical surface of the skirt; length (measured along the surface) = 13.62 in.; maximum width = 5.43 in.; minimum width = 2.29 in.; height (at maximum width) = 1.93 in.; radial locations, <math>\phi</math> = 45, 135, 225, and 315 deg. There are four rocket nozzles angled outward at 35 deg to rocket centerline. Rockets are located aft of the escape rocket base and radially at <math>\phi</math> = 0, 90, 180, and 270 deg (see sketch for dimensions). There are two forward jettison nozzles; one is located on top centerline, <math>\phi</math> = 0 deg and the other on lower centerline, <math>\phi</math> = 180 deg. The jettison nozzles are angled outward at 30 deg to rocket centerline and protrude one in. above rocket mold line. Nozzle apex semiangle = 10 deg. Apex is located 76.17 in. aft of escape rocket nose. There is a kicker motor located on lower centerline and 54.17 in. aft of escape</p>			7121-01089-3 (Mod.) and Raceways		



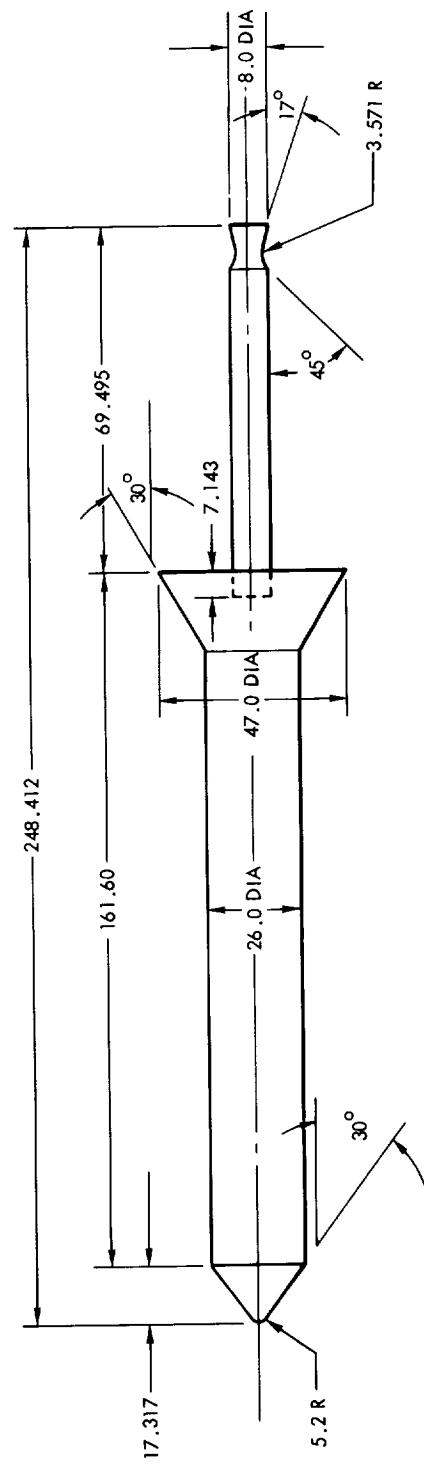
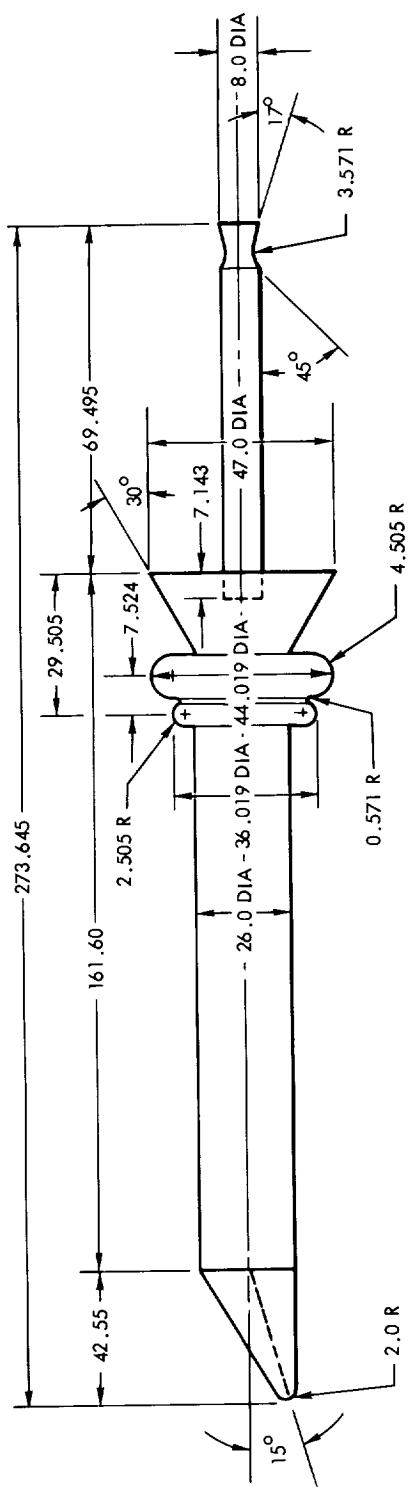
Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
E67 (Cont)	rocket nose. There are two (2) raceways on the surface of the main rocket body (see sketch for dimensions). Nose radius = 2.0 in. Nose included angle = 30 deg.				Pretest and Data Reports
E68	Escape Rocket - Same as E67 except that there are two canards attached to the escape rocket by struts. The aft strut is attached to the rocket 42.79 in. aft of escape rocket nose (see sketch for dimensions).	D. C.	FS-2		
E69	Identical to E67	B. C.	FS-2	7121-01048-4, -5, and -6 7121-01080-18 7121-01089-3 (Mod.) and Raceways	Ames 066(8 by 7) 066(9 by 7) 066(11 by 11)



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE ROCKET E<sub>2</sub>

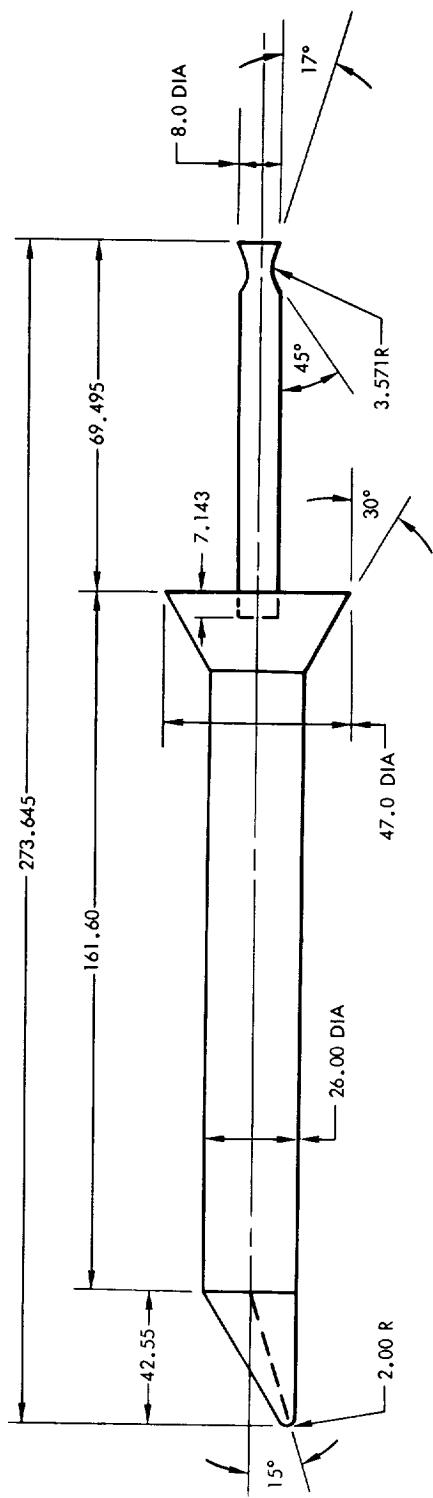
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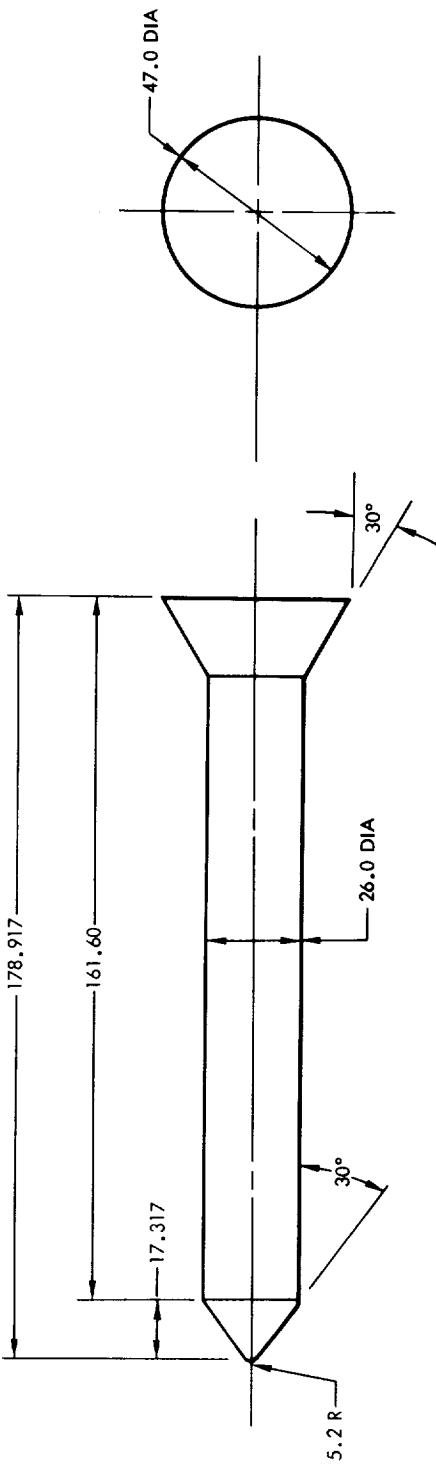
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ESCAPE ROCKET E<sub>4</sub>

FULL-SCALE DIMENSIONS IN INCHES



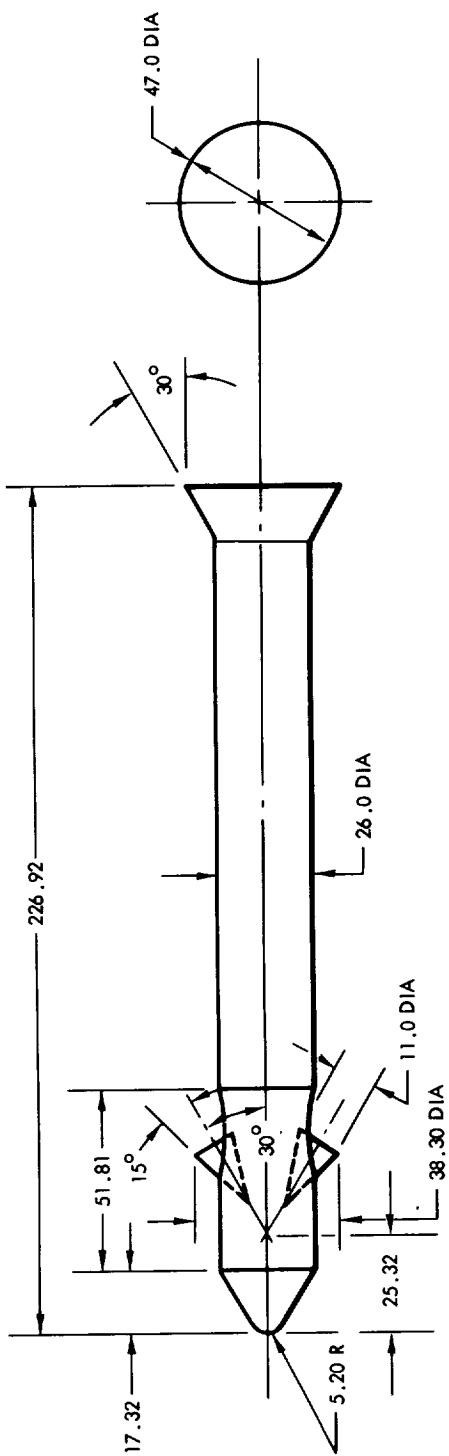
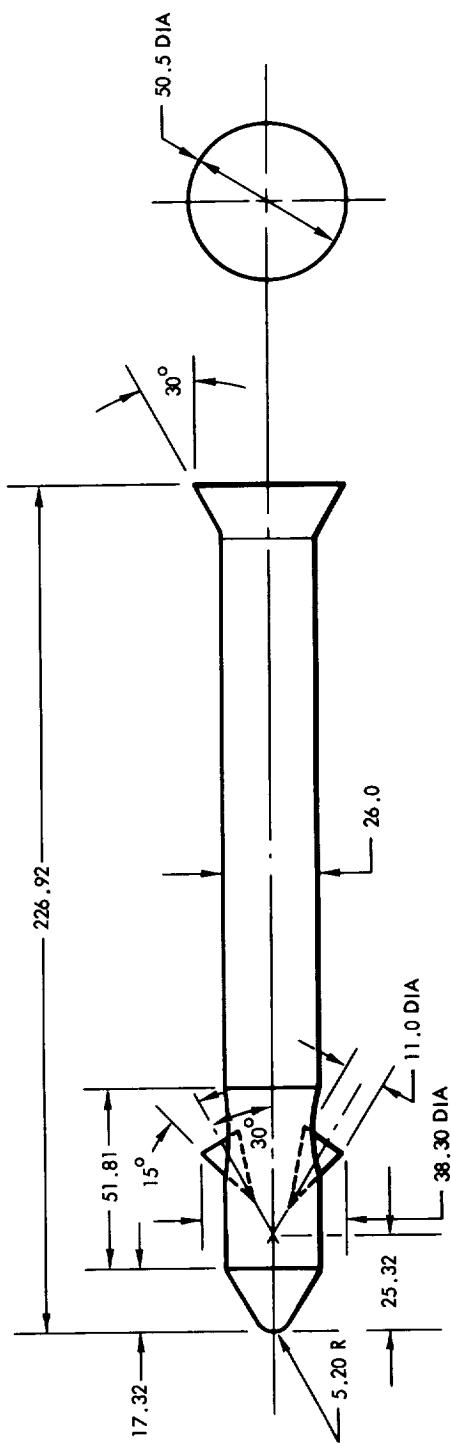
ESCAPE ROCKET E5



ESCAPE ROCKET E6

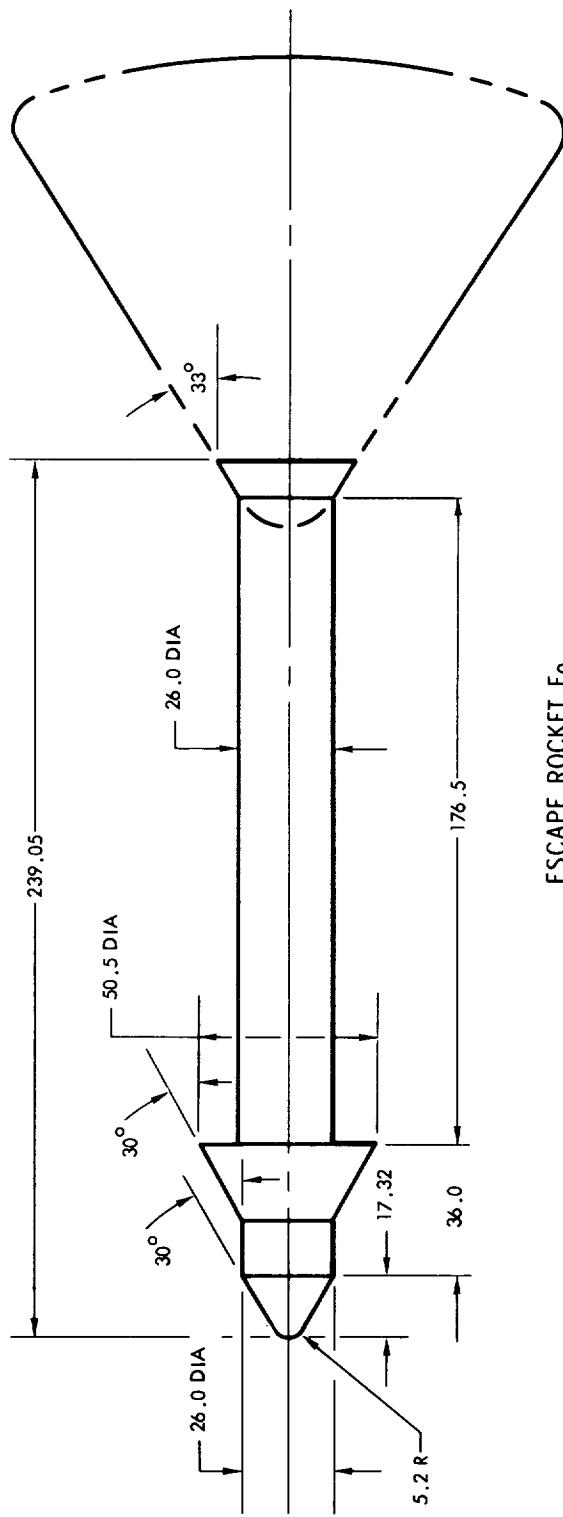
FULL-SCALE DIMENSIONS IN INCHES

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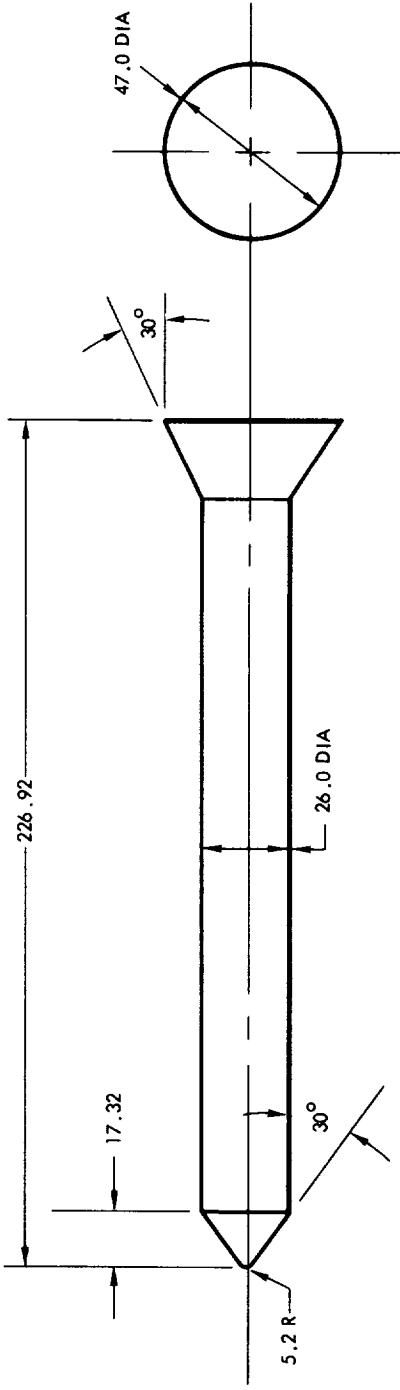
ESCAPE ROCKET E<sub>7</sub>ESCAPE ROCKET E<sub>8</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



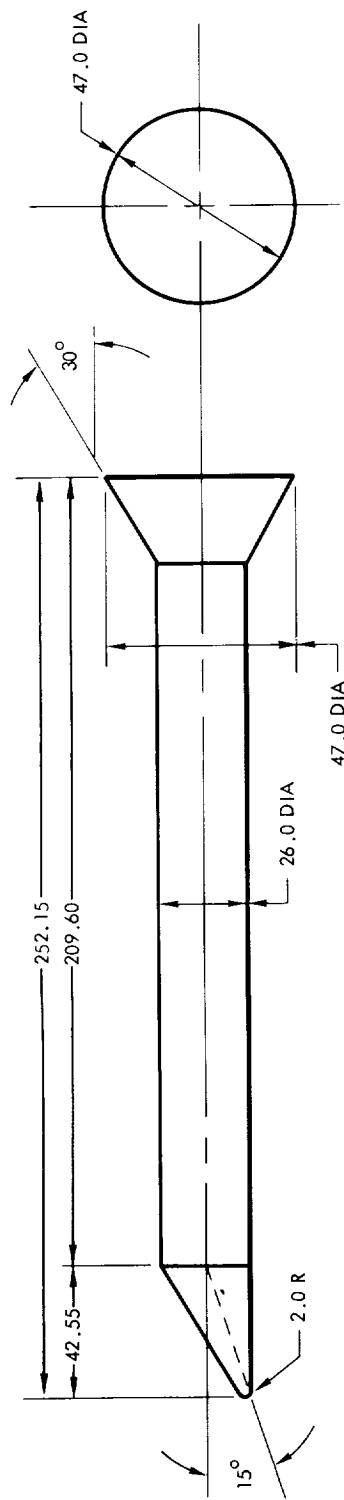
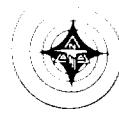
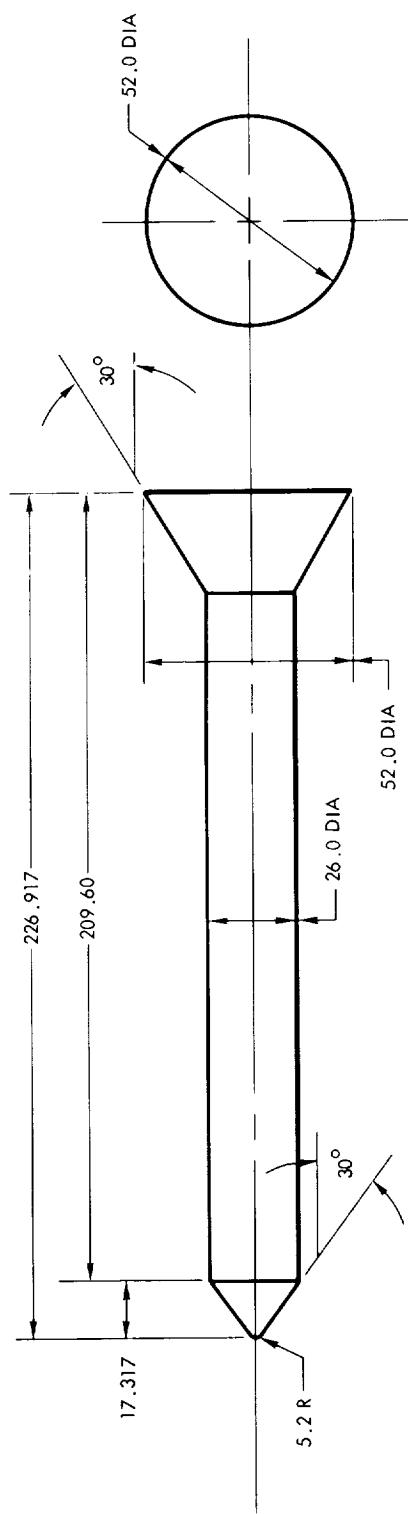
ESCAPE ROCKET E9



DRAWING NOT TO SCALE

ESCAPE ROCKET E10

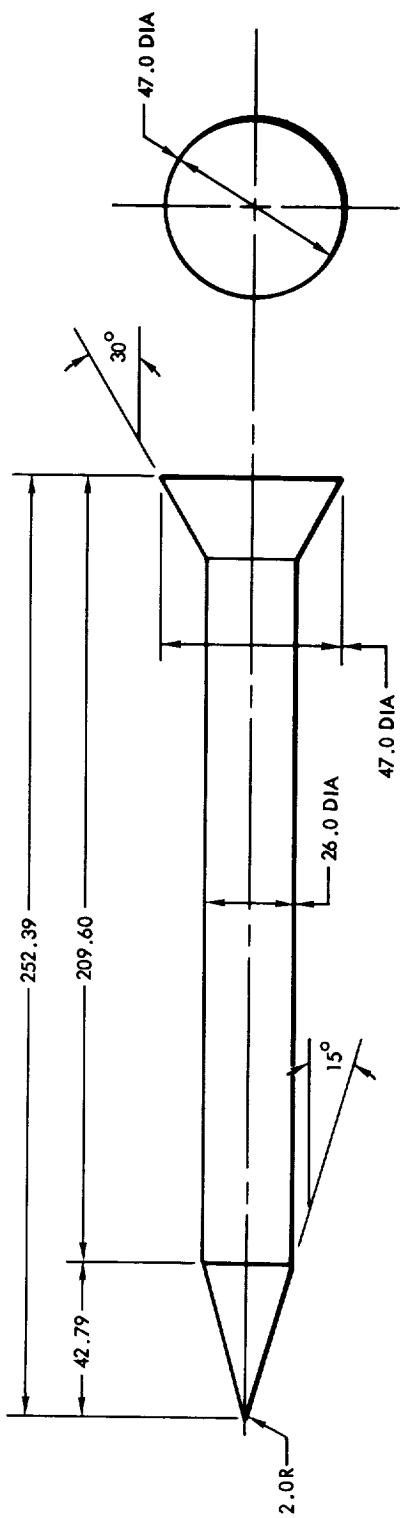
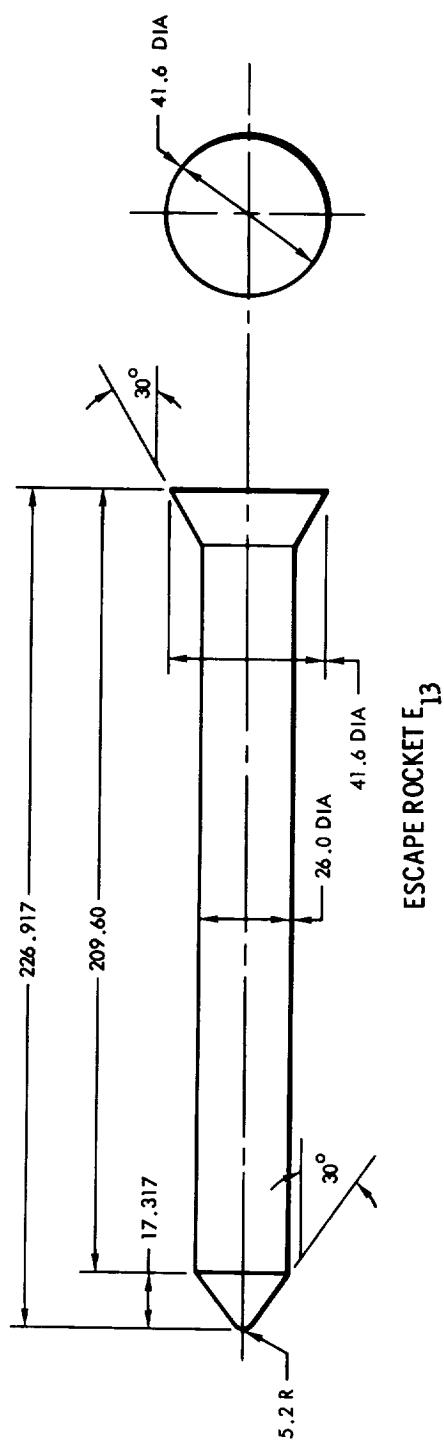
FULL-SCALE DIMENSIONS IN INCHES

ESCAPE ROCKET E<sub>11</sub>

FULL-SCALE DIMENSIONS IN INCHES

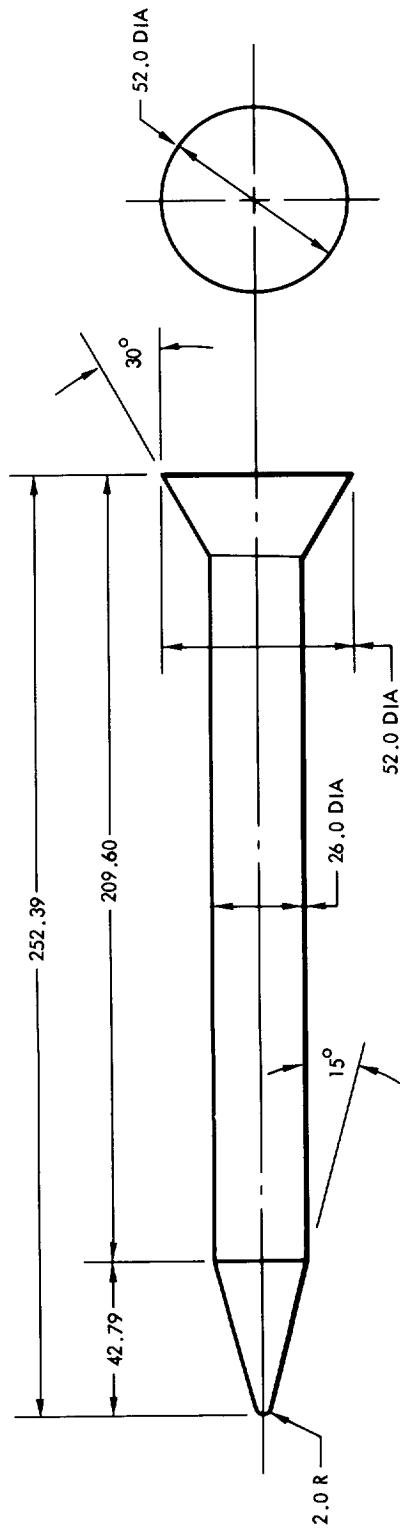
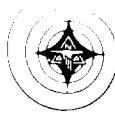
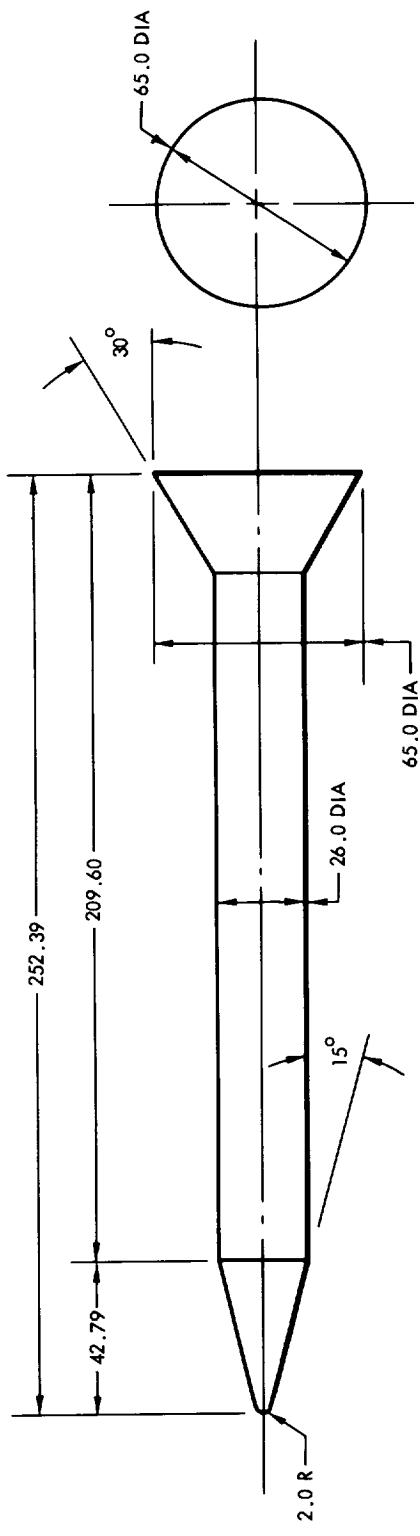
ESCAPE ROCKET E<sub>12</sub>

DRAWING NOT TO SCALE



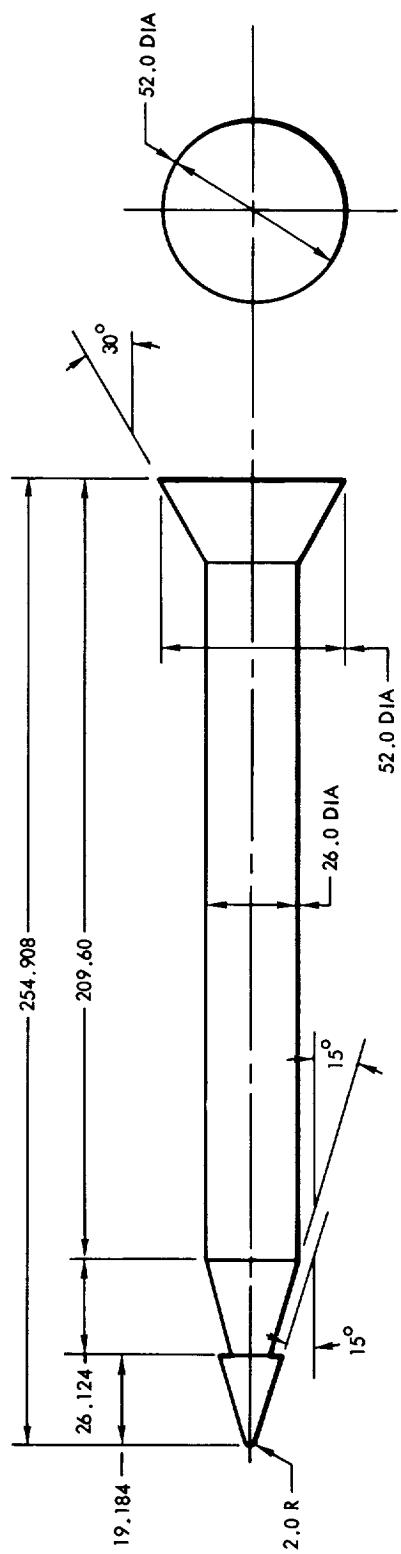
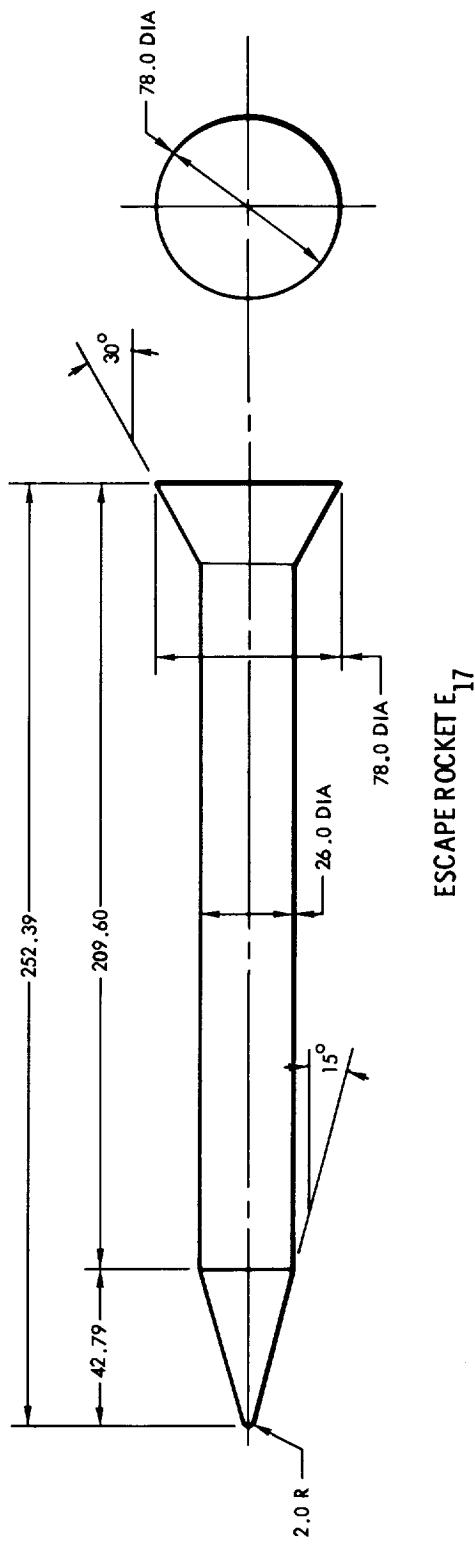
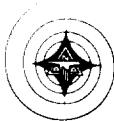
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>15</sub>

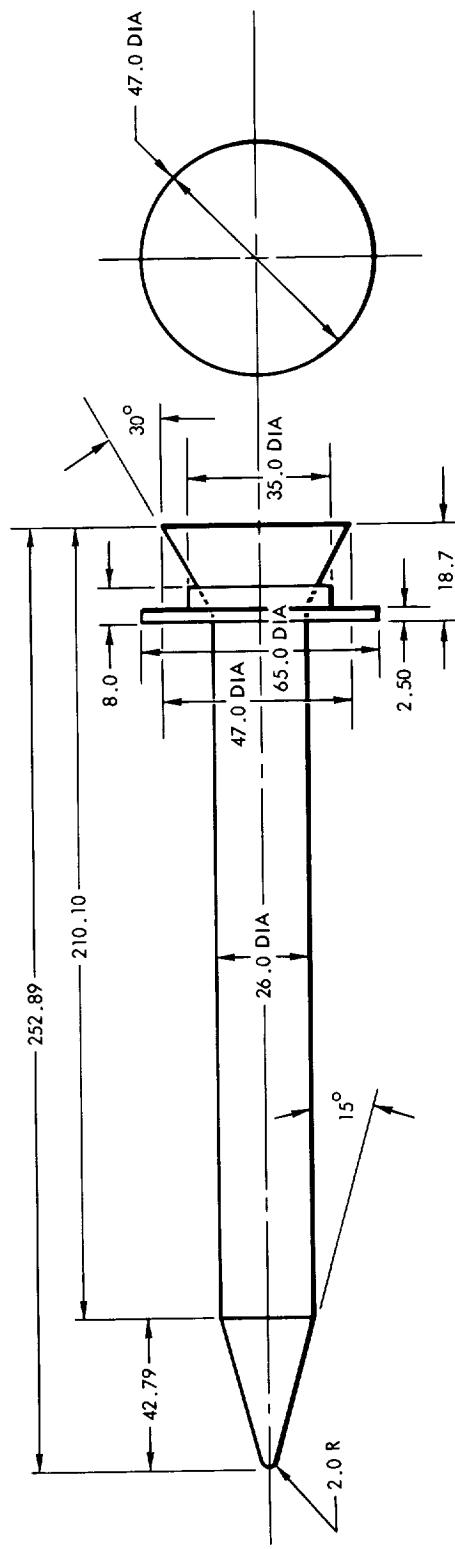
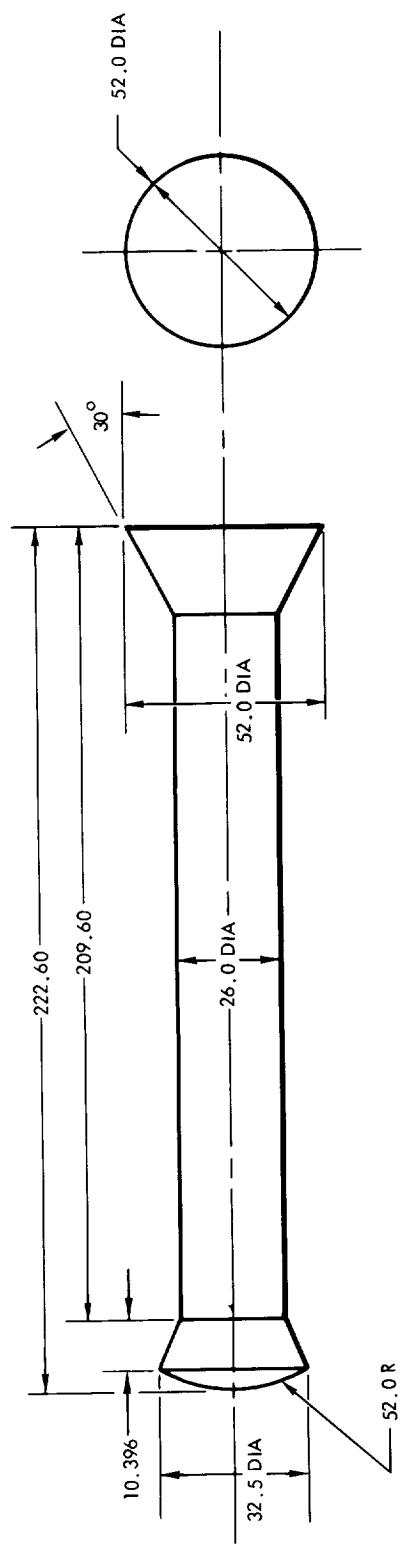
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



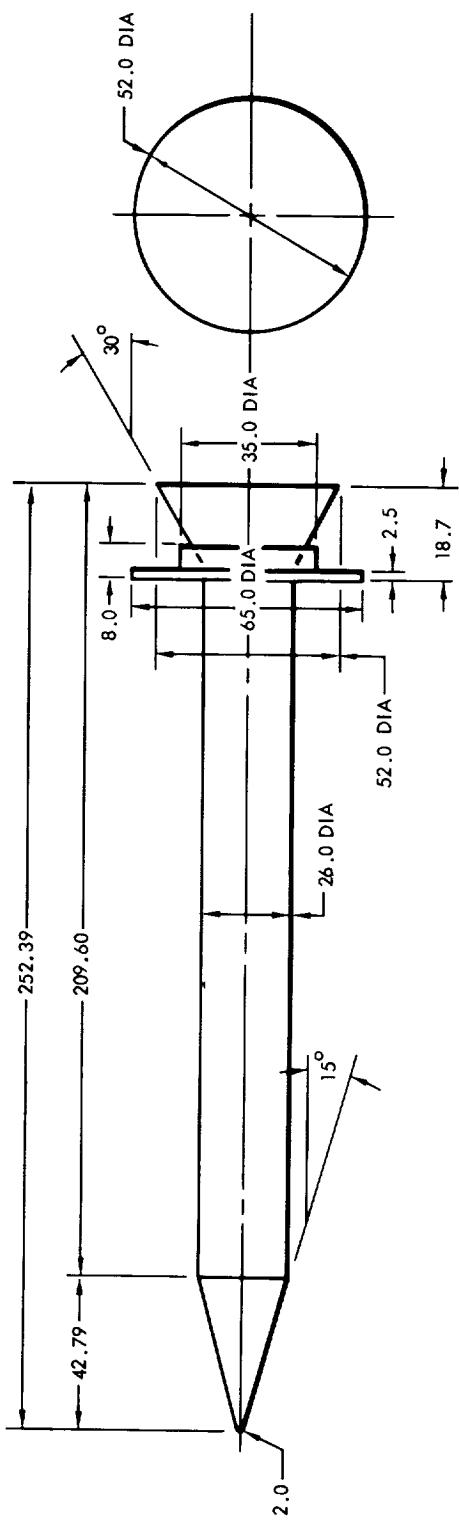
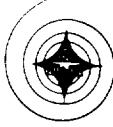
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

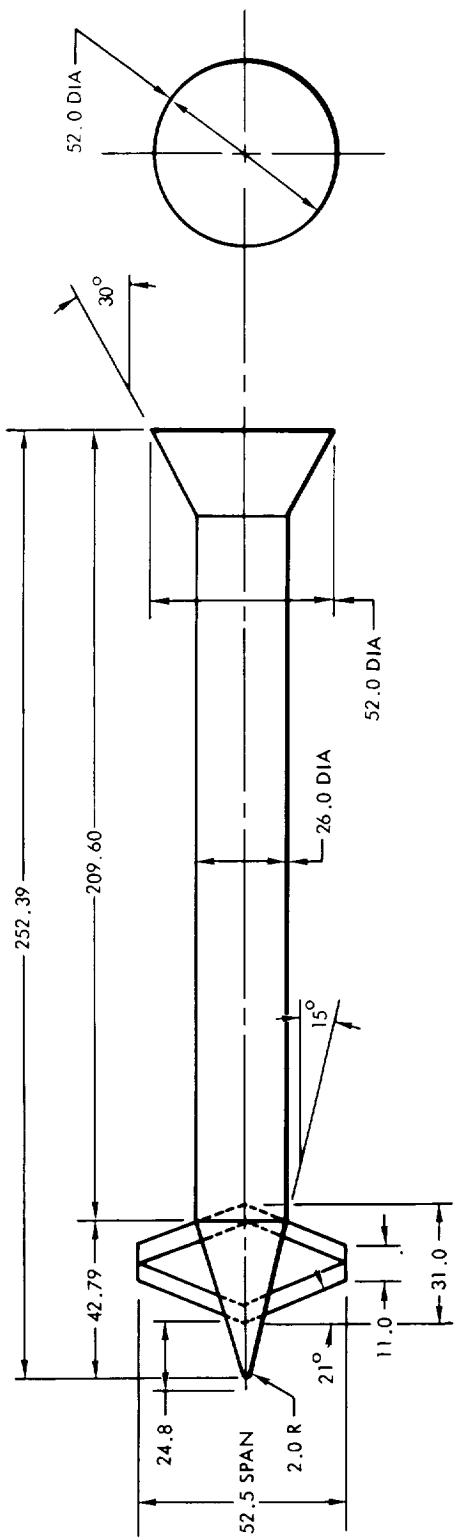


ESCAPE ROCKET E<sub>20</sub>  
(FS-2)

NOTE: SAME AS DEFINED E<sub>20</sub>  
EXCEPT ROCKET BASE  
DIA = 52.0 IN. AND  
TOTAL LENGTH = 252.39 IN.

FULL-SCALE DIMENSIONS IN INCHES

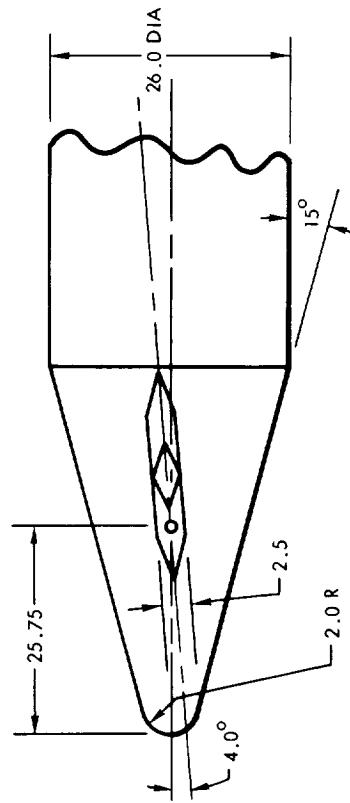
DRAWING NOT TO SCALE

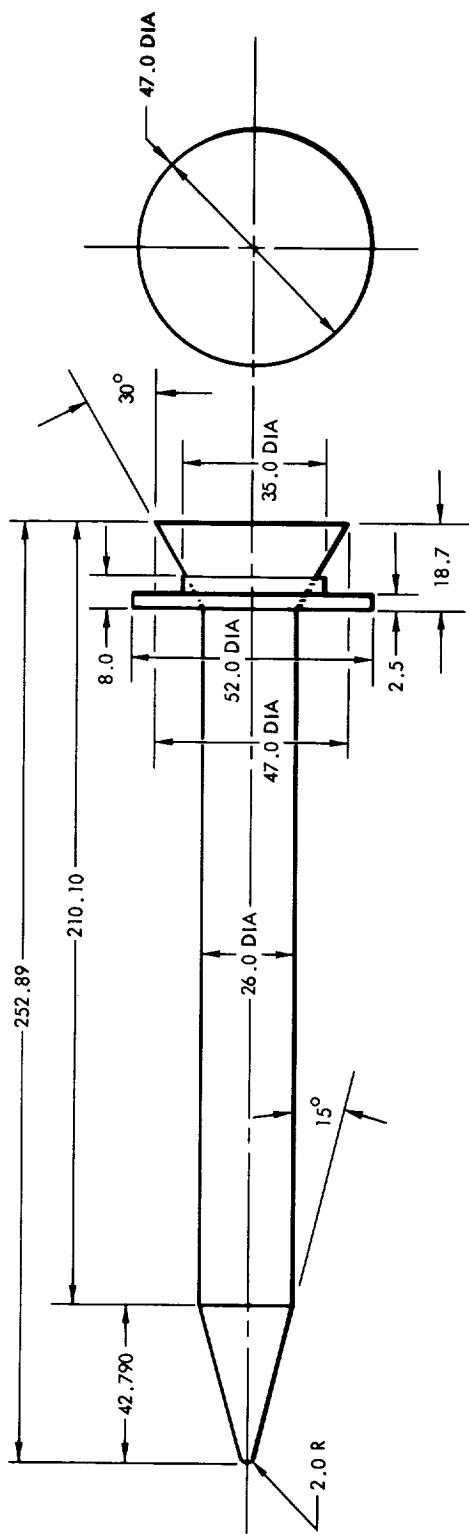
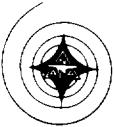


DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>21</sub>

FULL-SCALE DIMENSIONS IN INCHES

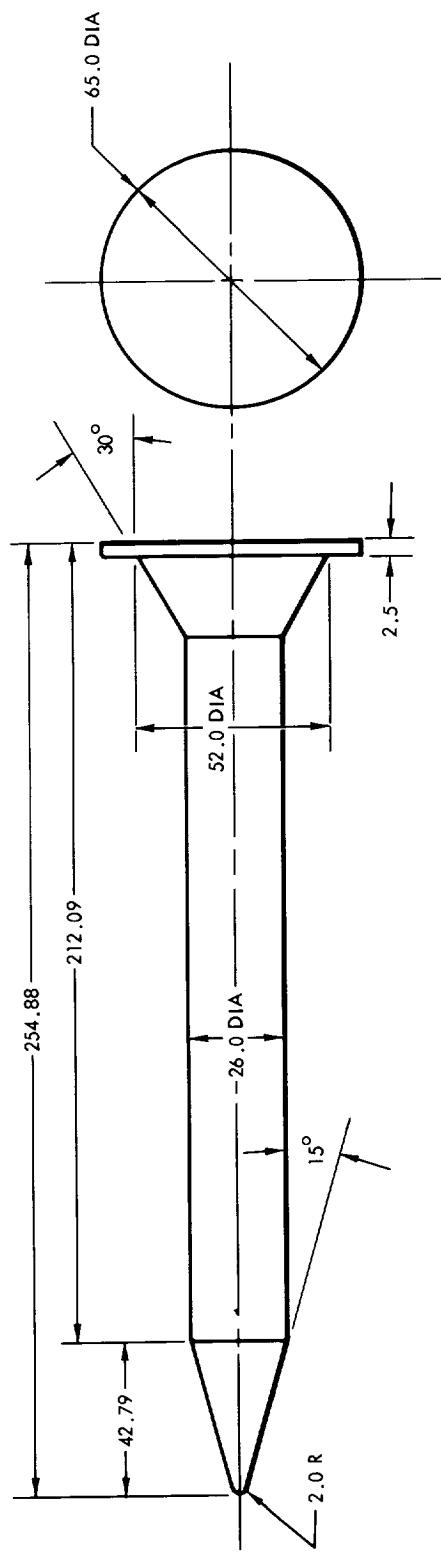
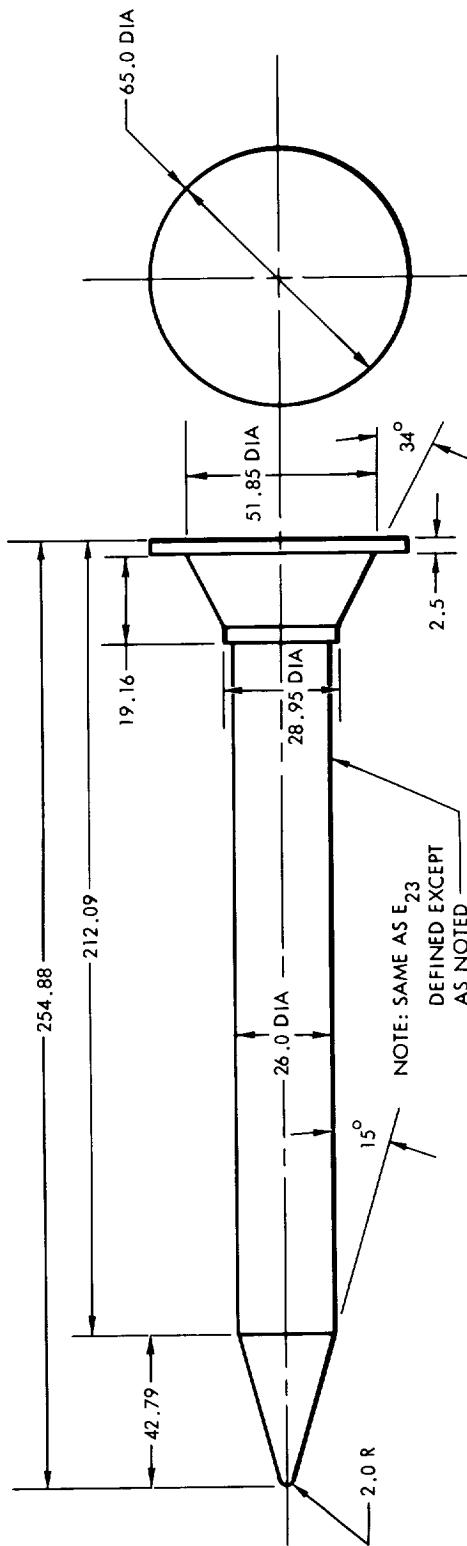




FULL-SCALE DIMENSIONS IN INCHES

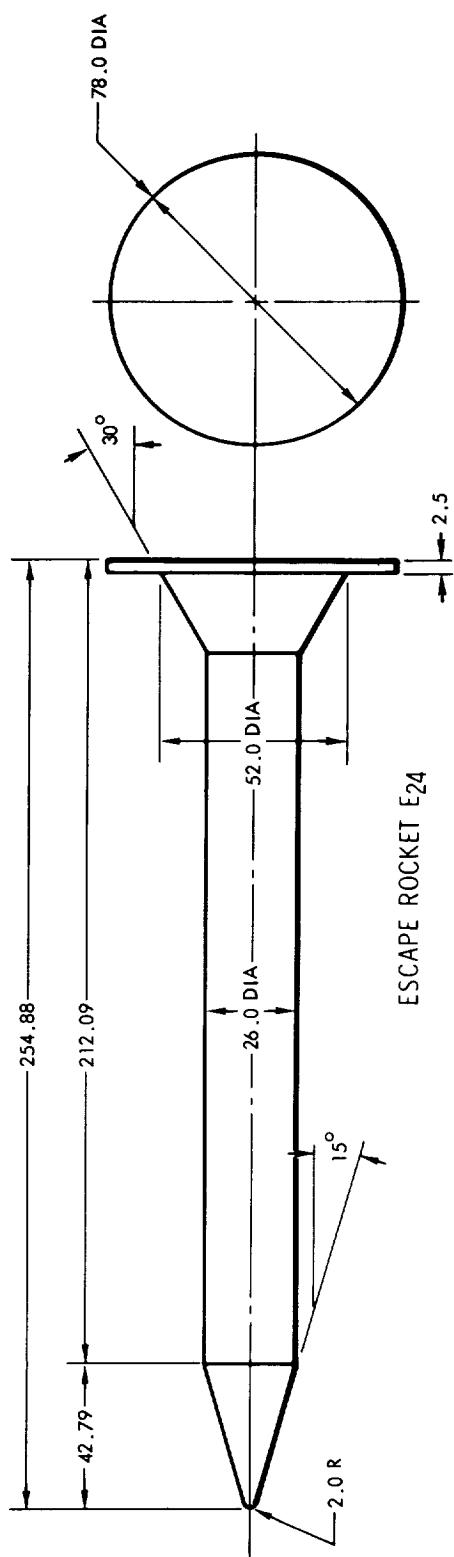
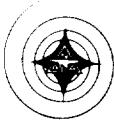
ESCAPE ROCKET E<sub>22</sub>

DRAWING NOT TO SCALE

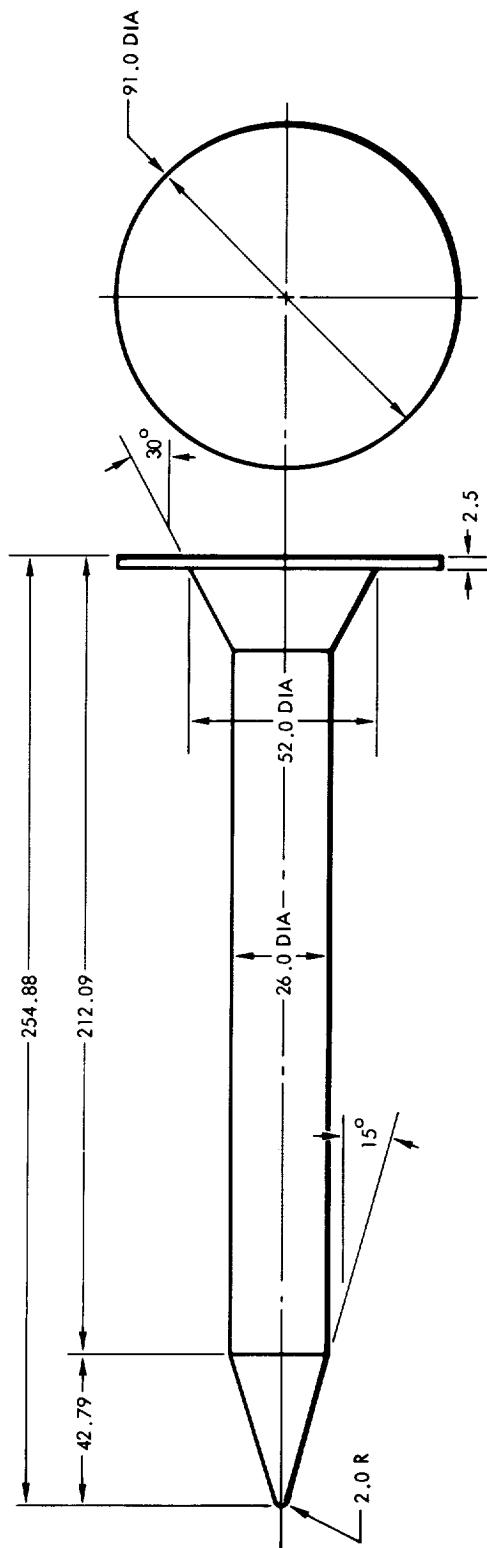
ESCAPE ROCKET E<sub>23</sub>  
(DEFINED)ESCAPE ROCKET E<sub>23</sub>

DRAWING NOT TO SCALE

FULL-SCALE DIMENSIONS IN INCHES

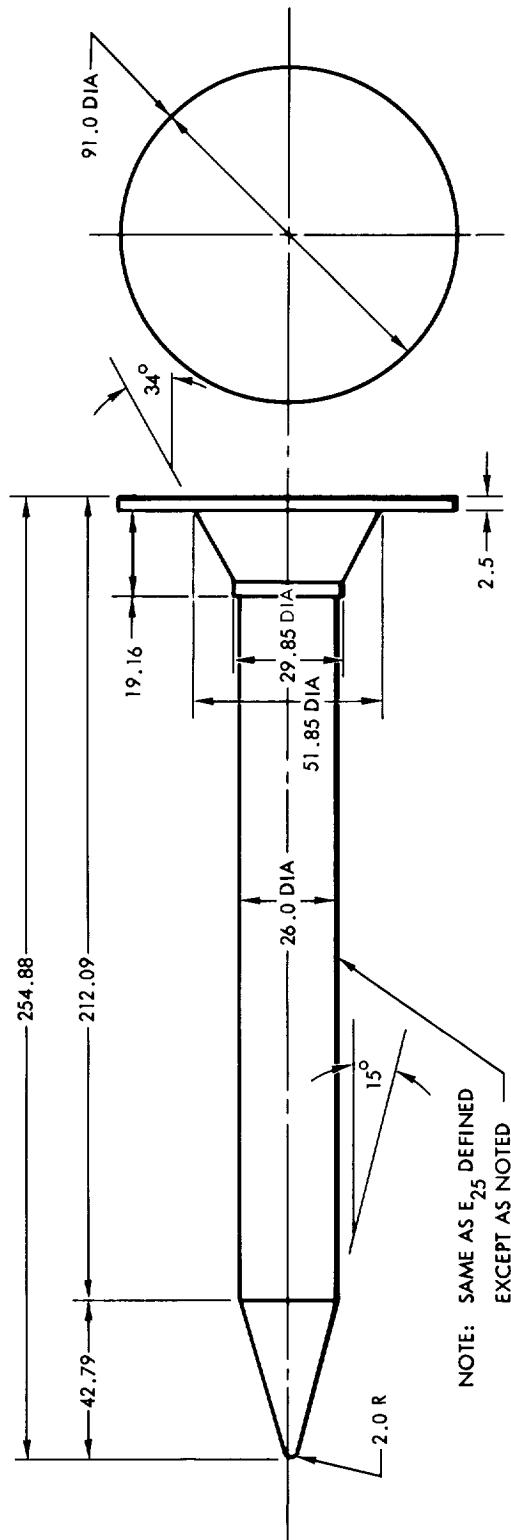
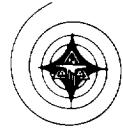


ESCAPE ROCKET E24

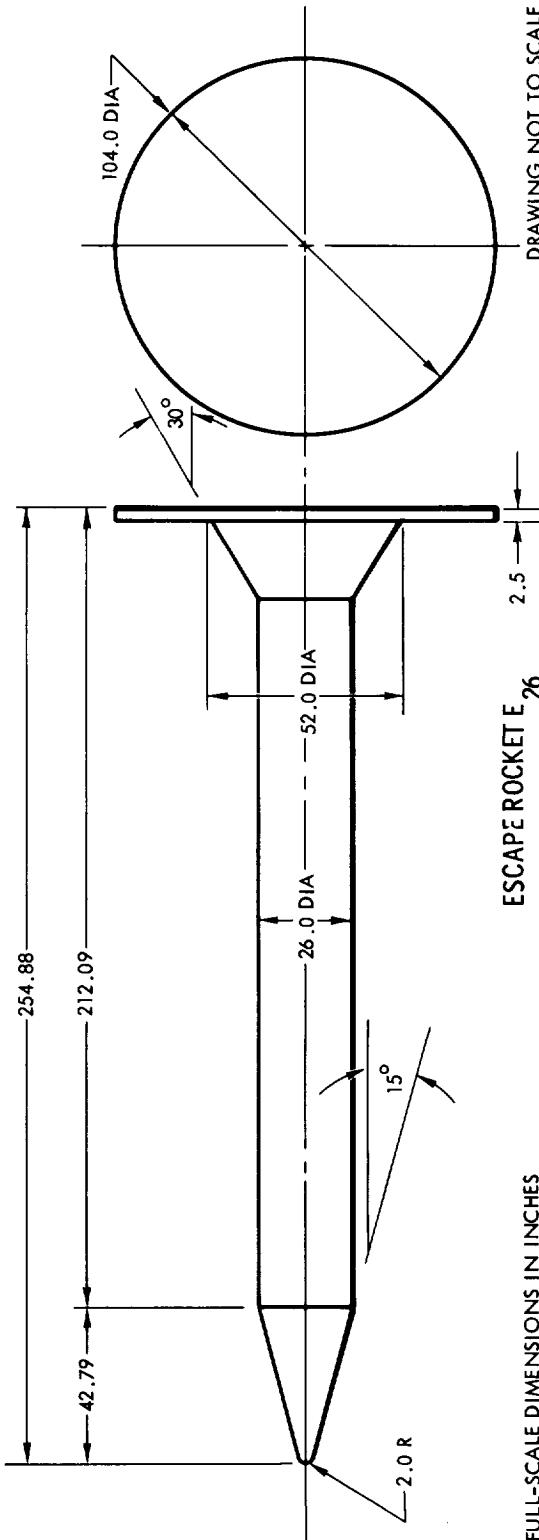
ESCAPE ROCKET E25  
(DEFINED)

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

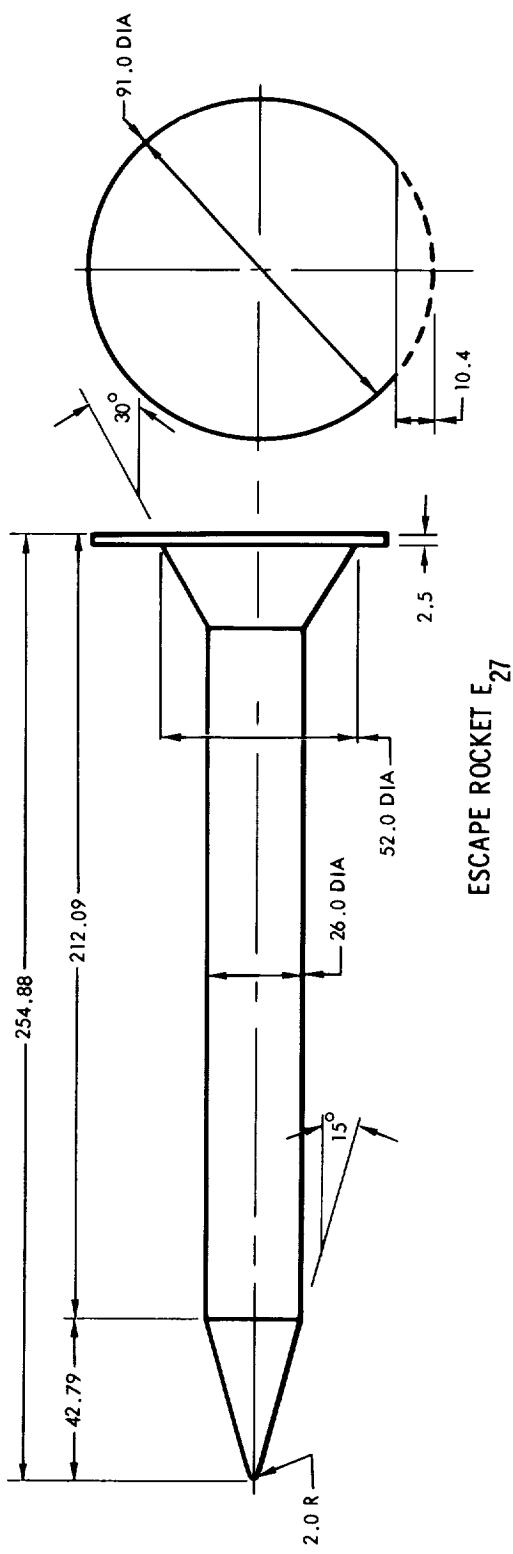
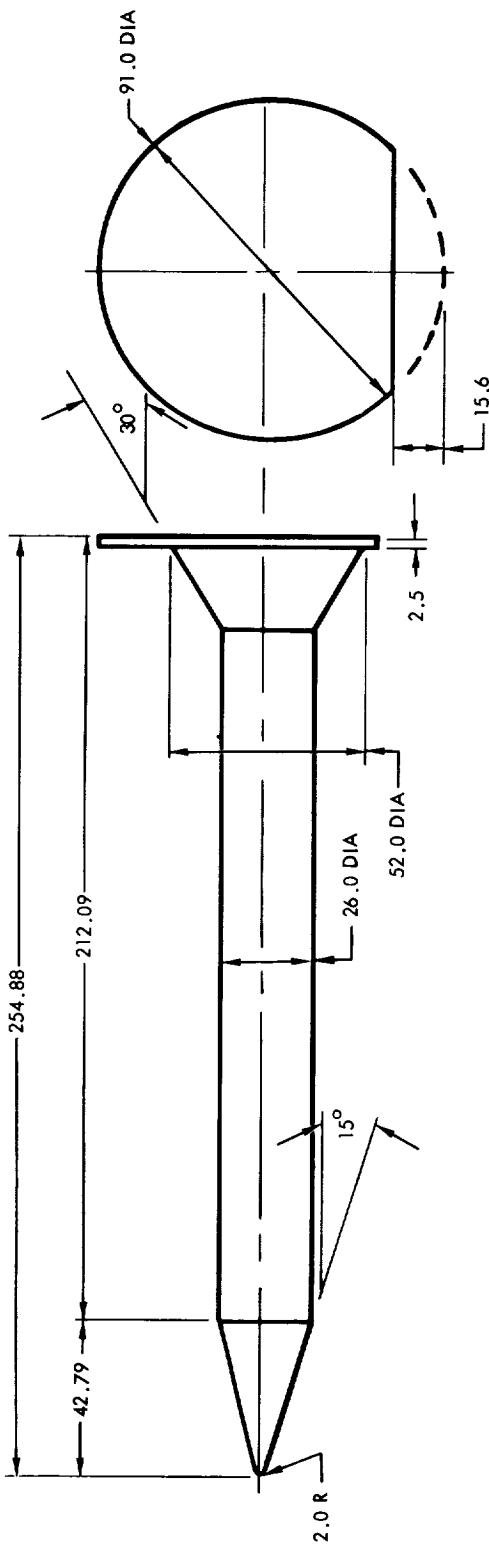


ESCAPE ROCKET E<sub>25</sub>  
(FS-2)



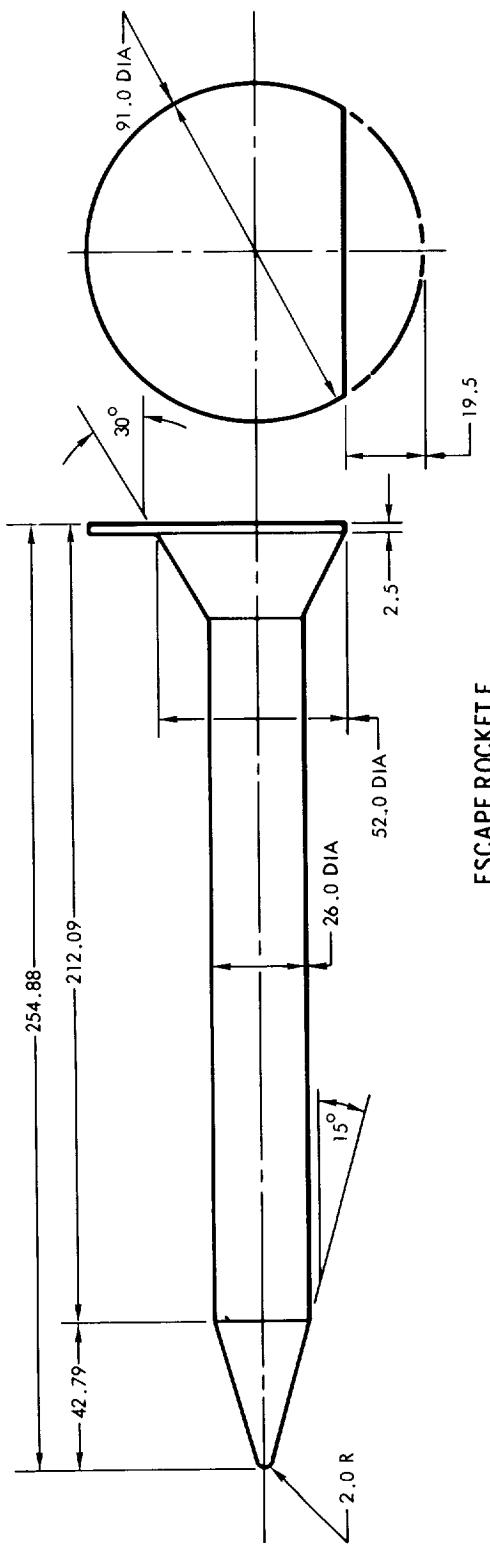
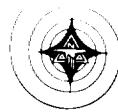
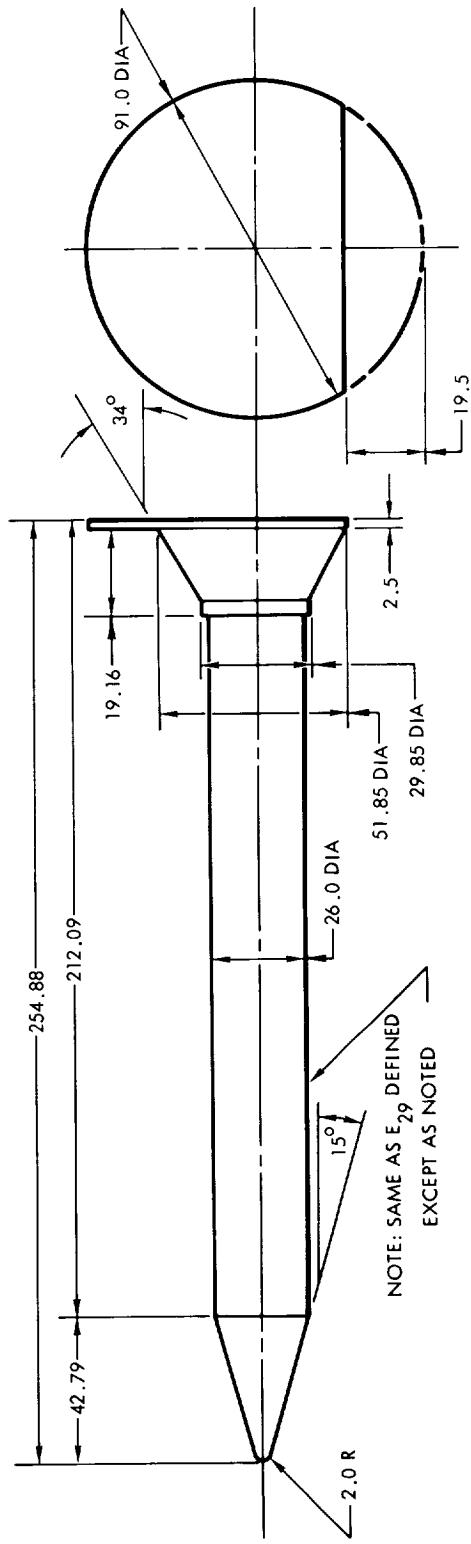
ESCAPE ROCKET E<sub>26</sub>

FULL-SCALE DIMENSIONS IN INCHES

ESCAPE ROCKET E<sub>27</sub>ESCAPE ROCKET E<sub>28</sub>

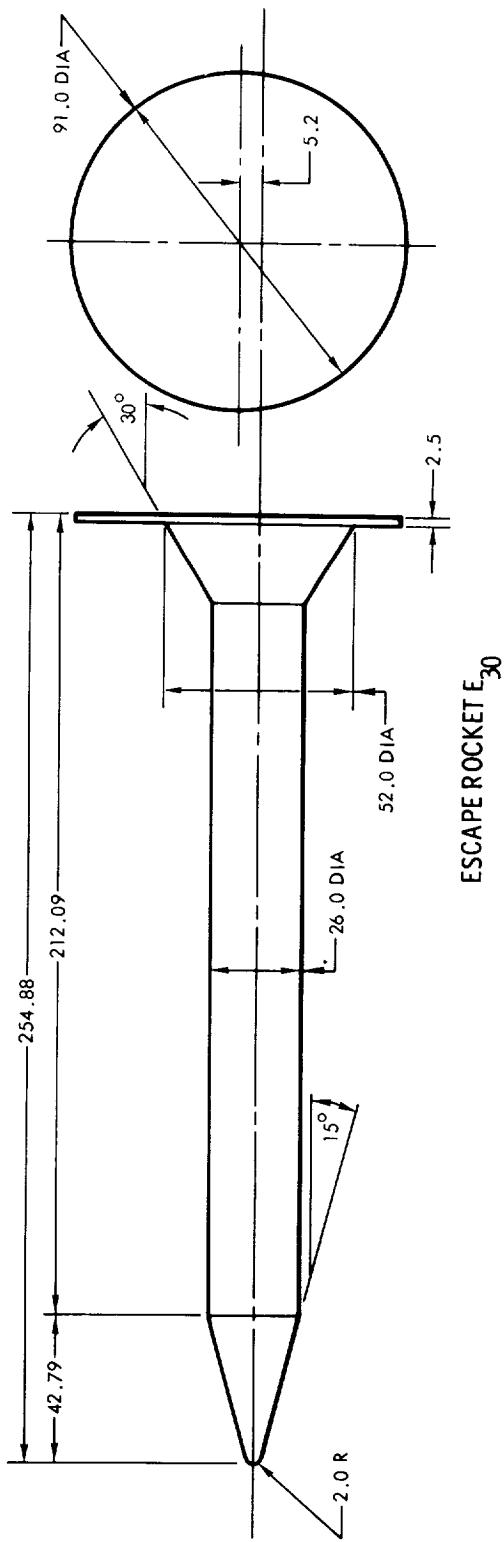
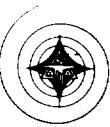
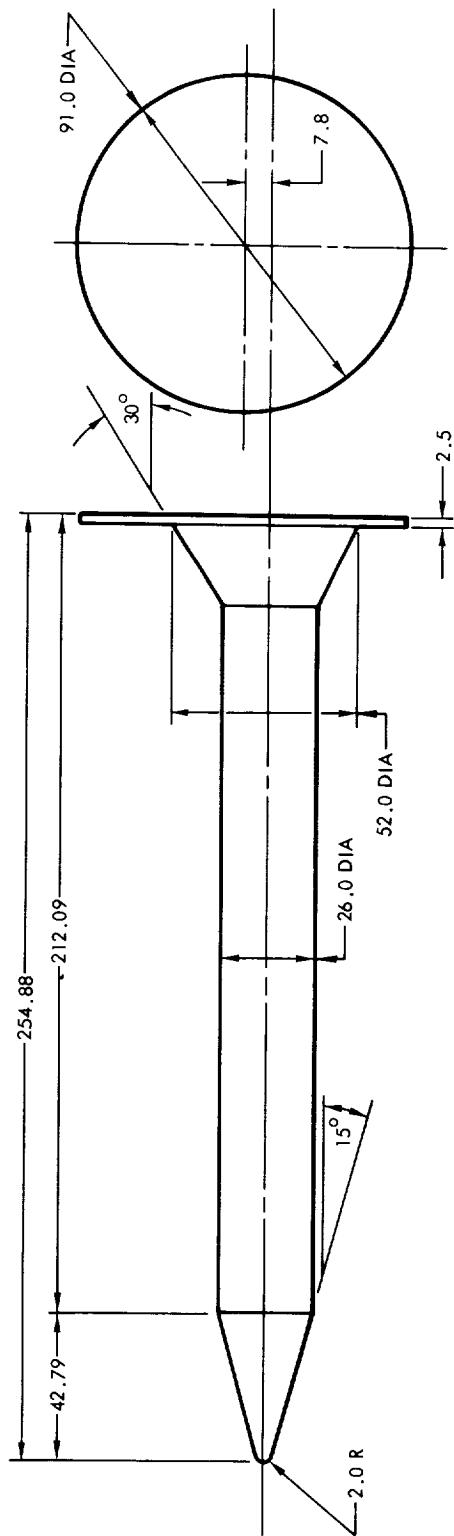
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>29</sub>  
(DEFINED)ESCAPE ROCKET E<sub>29</sub>  
(FS-2)

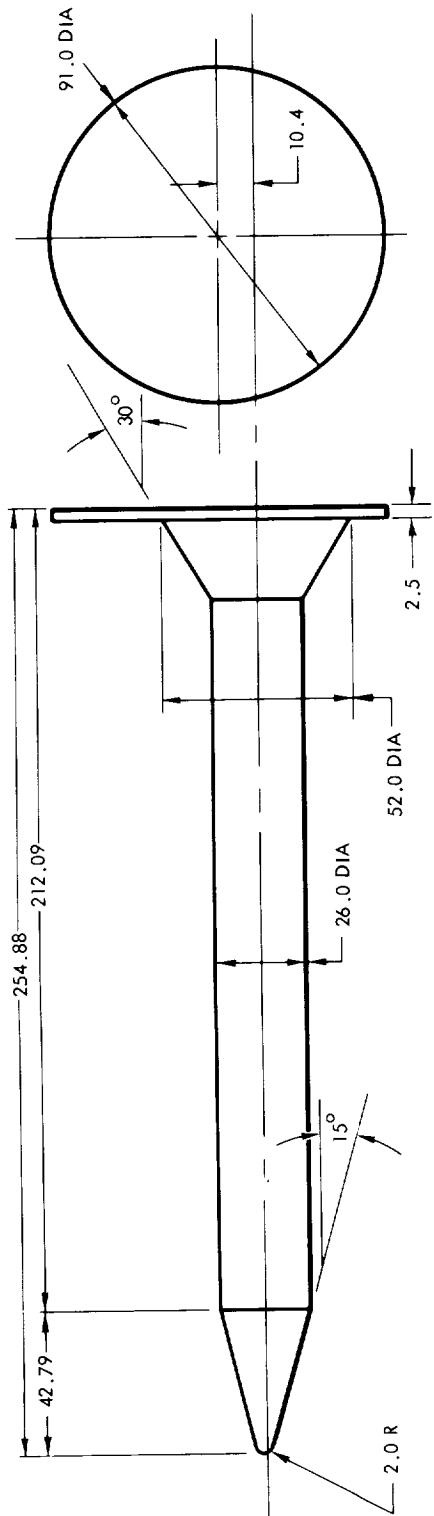
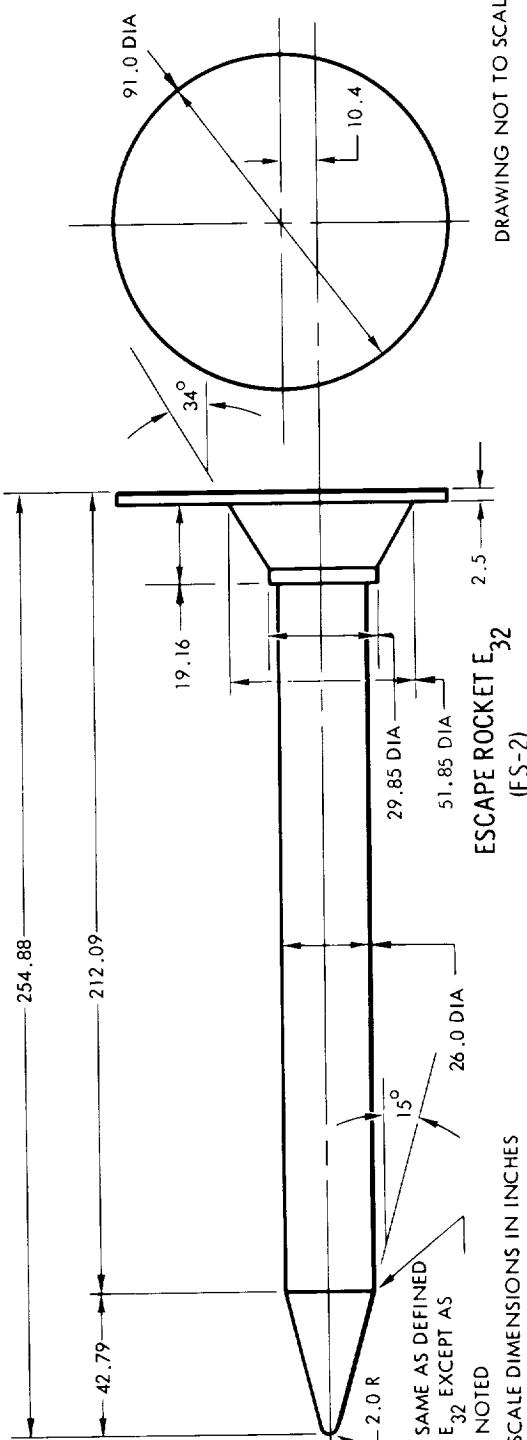
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>30</sub>ESCAPE ROCKET E<sub>31</sub>

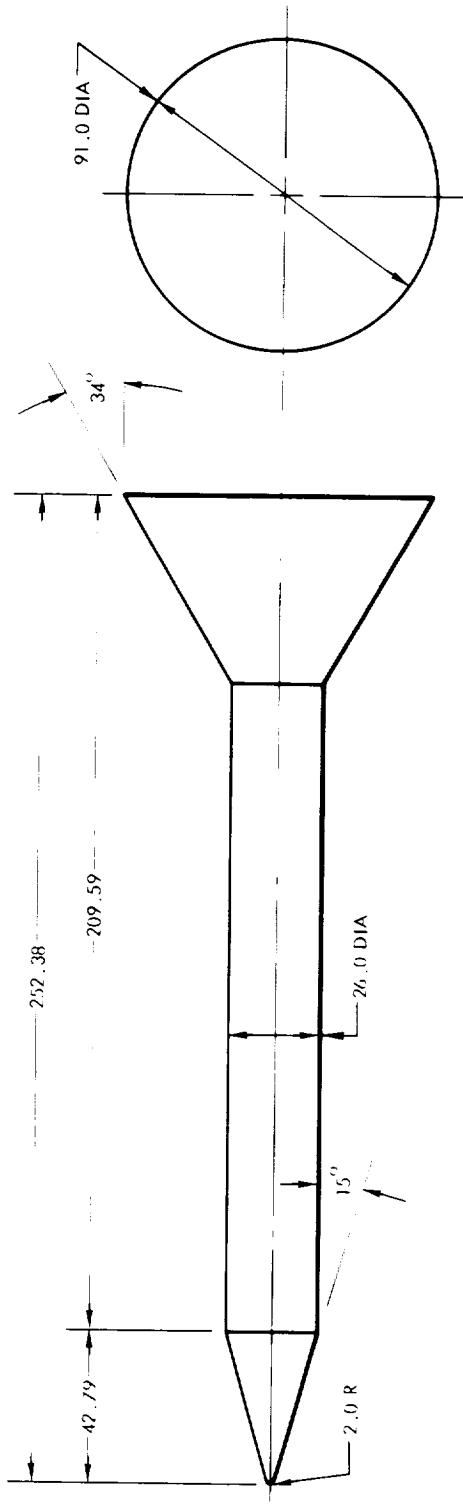
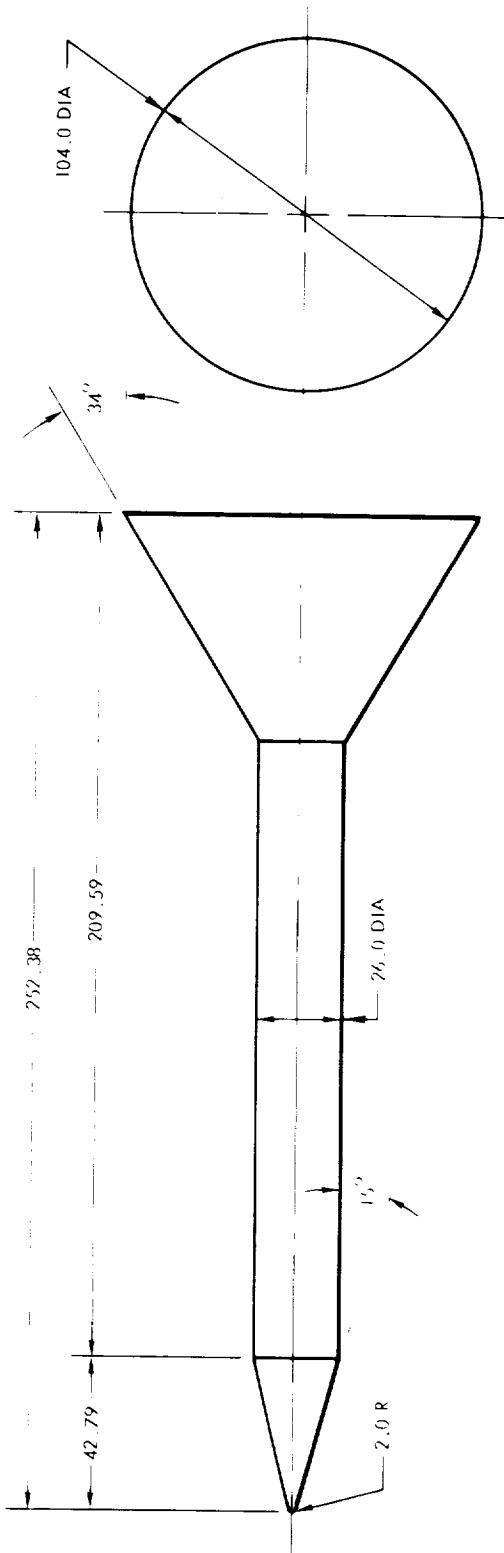
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>32</sub>  
(DEFINED)

NOTE: SAME AS DEFINED  
E<sub>32</sub> EXCEPT AS  
NOTED  
FULL-SCALE DIMENSIONS IN INCHES

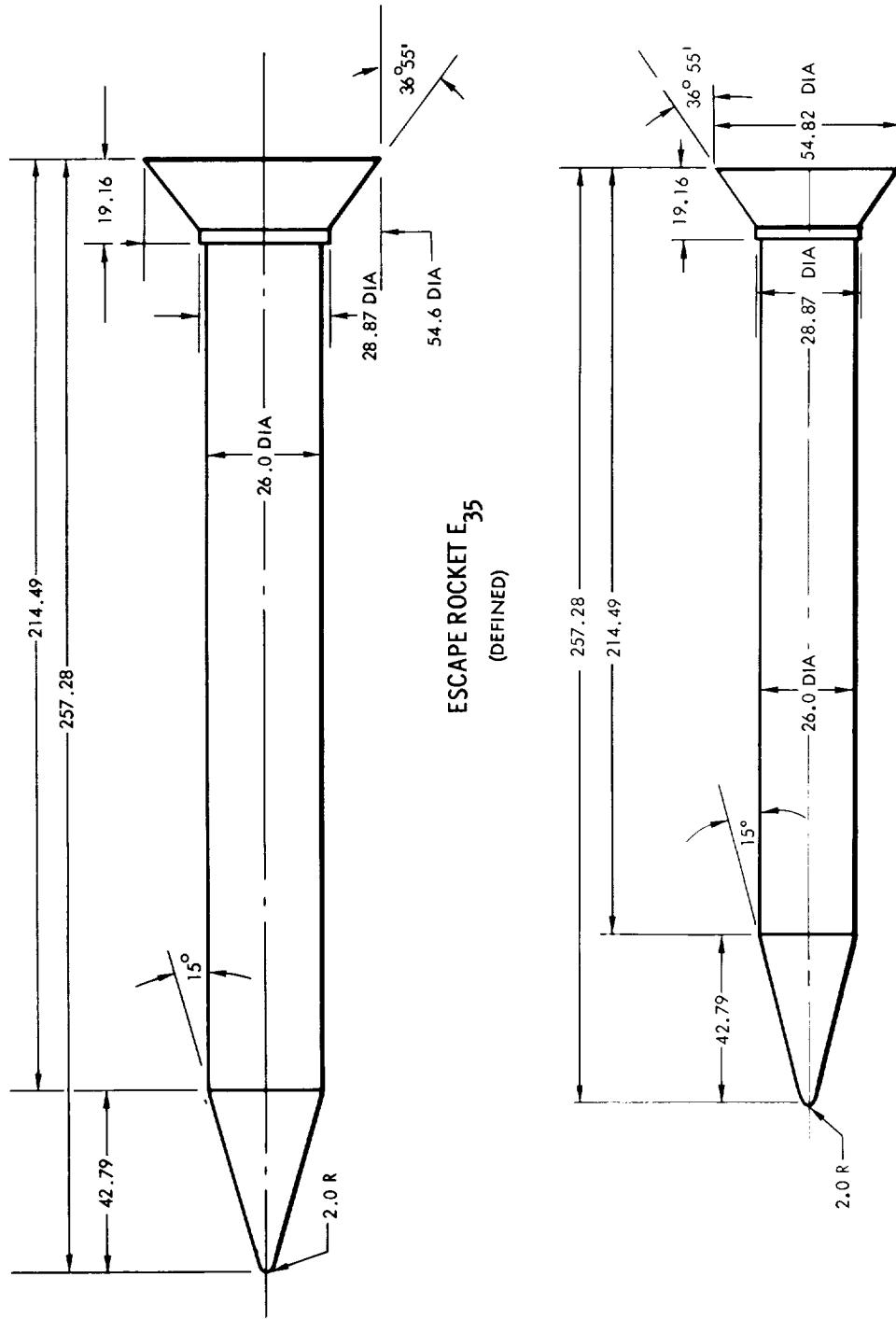
DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>33</sub>

FULL-SCALE DIMENSIONS IN INCHES

ESCAPE ROCKET E<sub>34</sub>

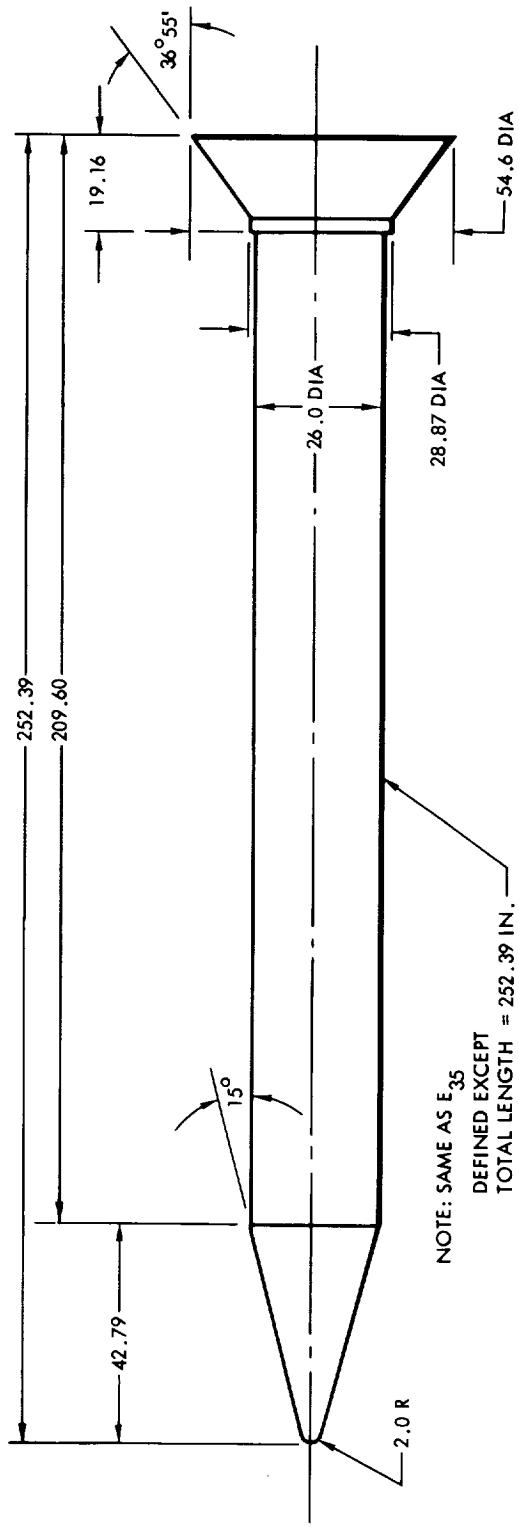
DRAWING NOT TO SCALE



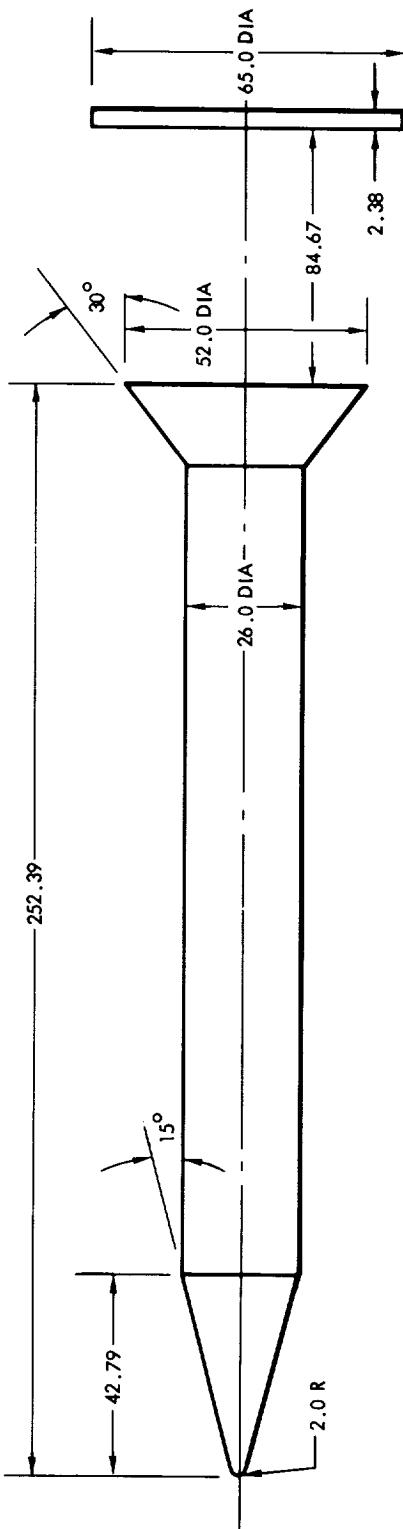
**ESCAPE ROCKET E<sub>35</sub>**  
(H-2, HL-1, AND HL-1B)

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



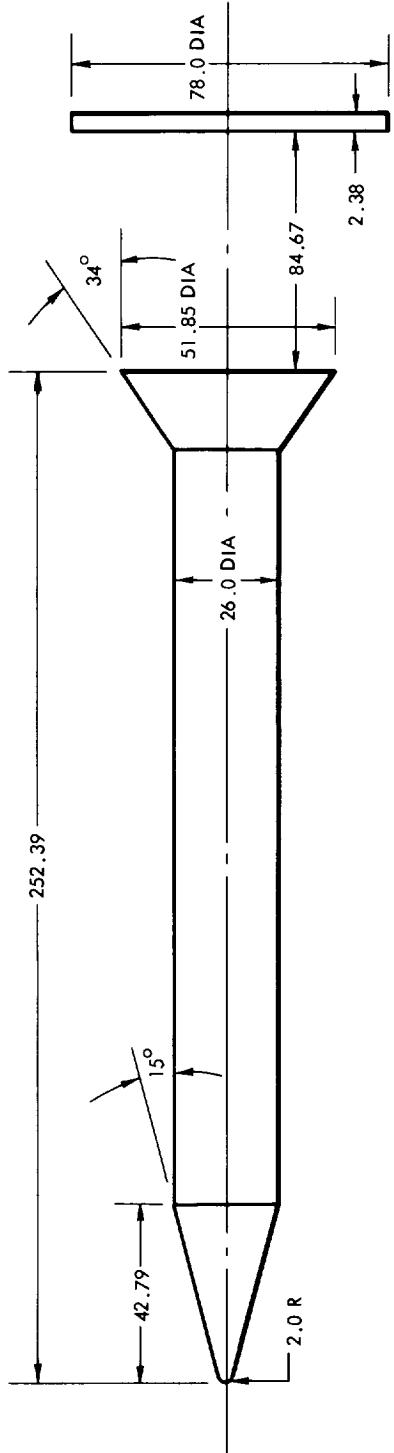
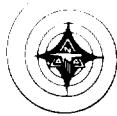
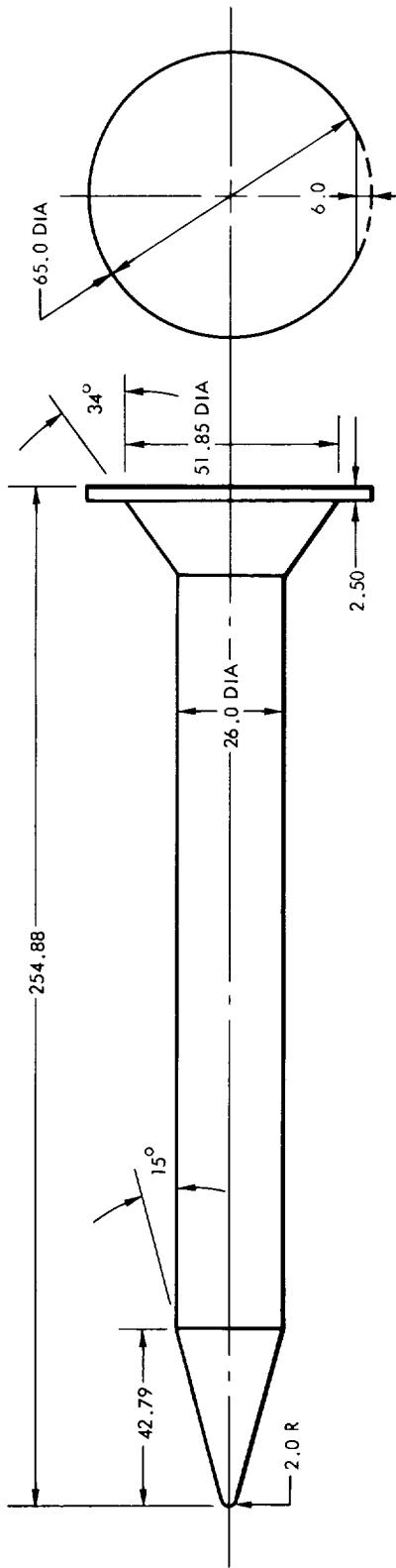
ESCAPE ROCKET E<sub>35</sub>  
(FS-2)



ESCAPE ROCKET E<sub>36</sub>

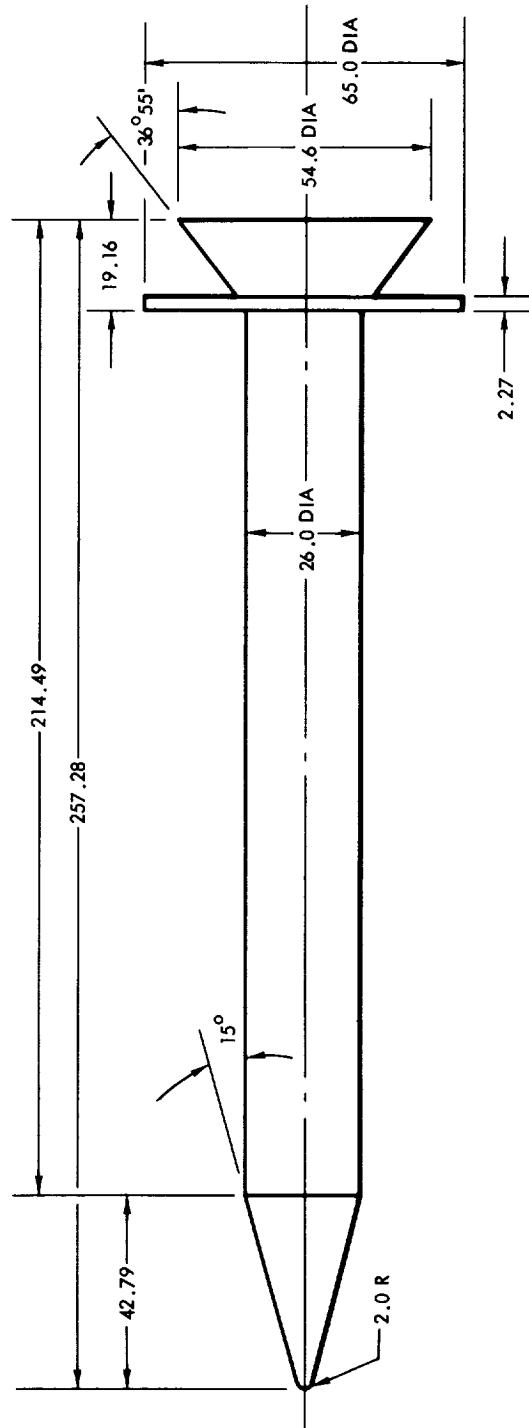
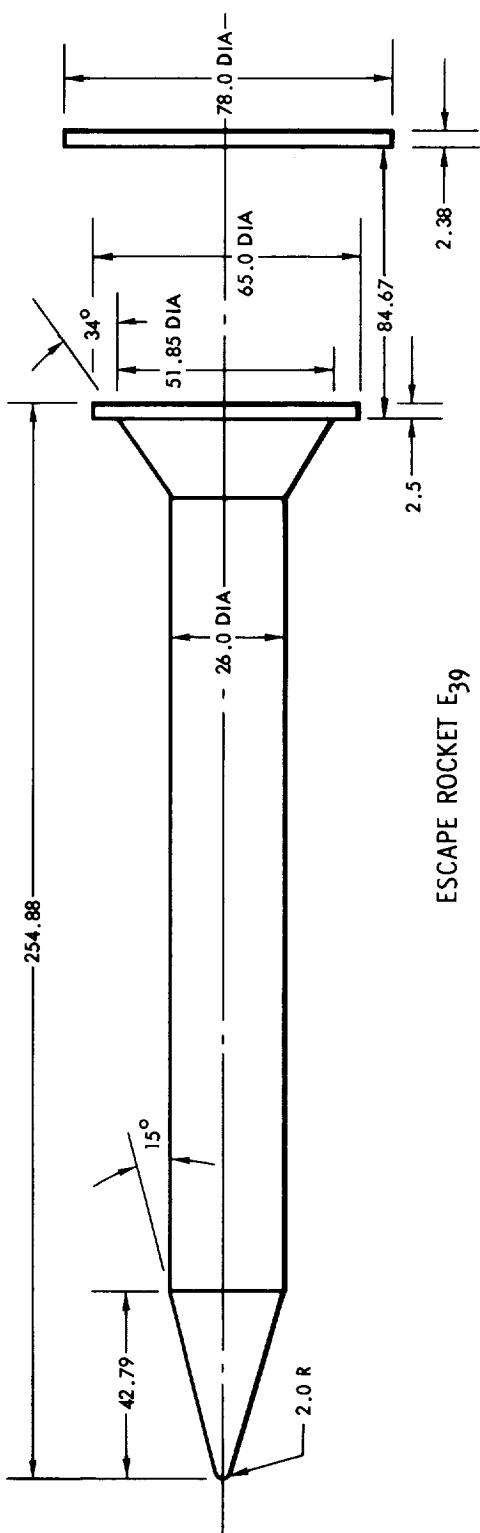
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>37</sub>ESCAPE ROCKET E<sub>38</sub>

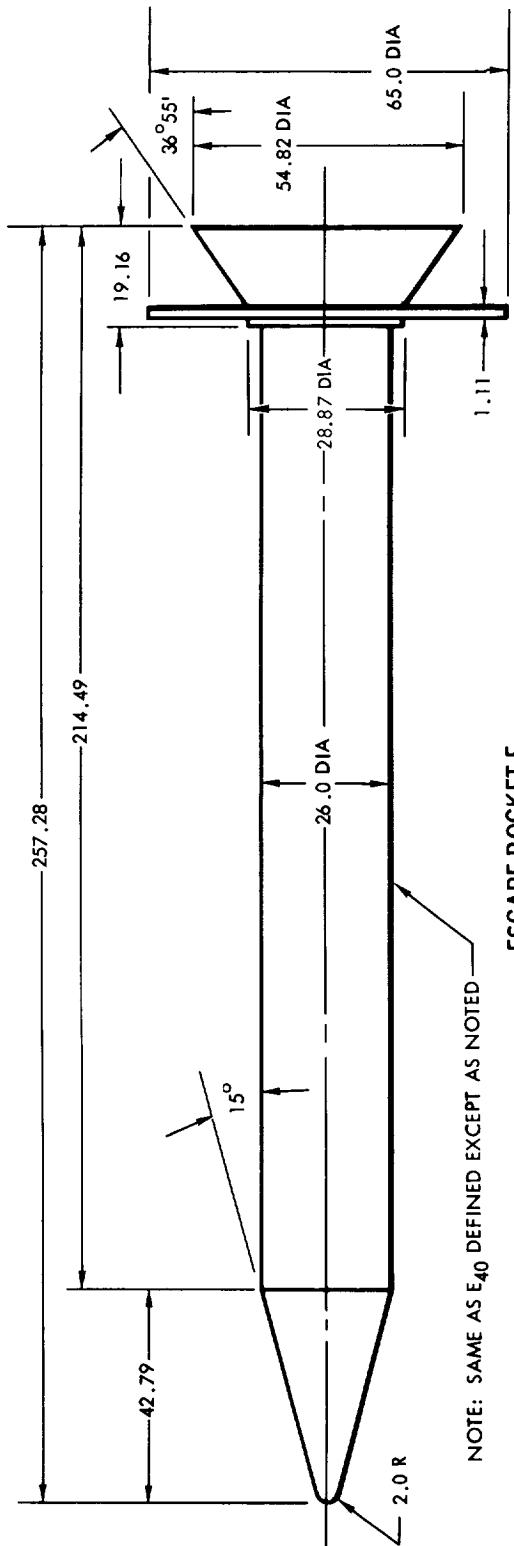
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

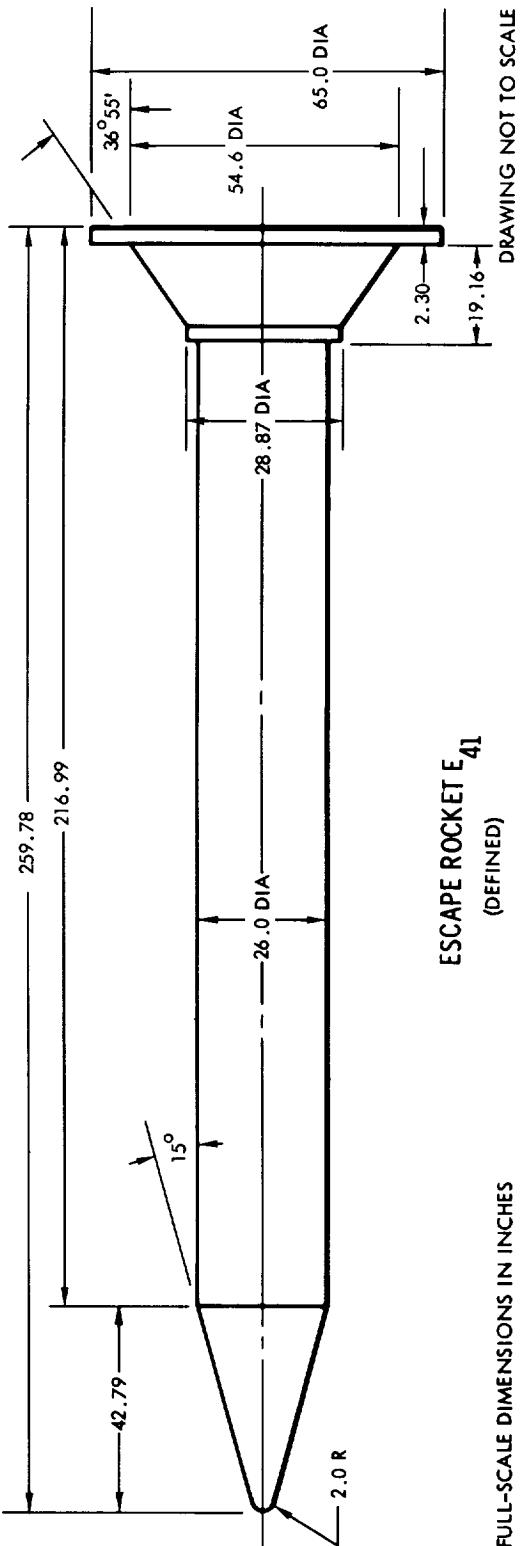


FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



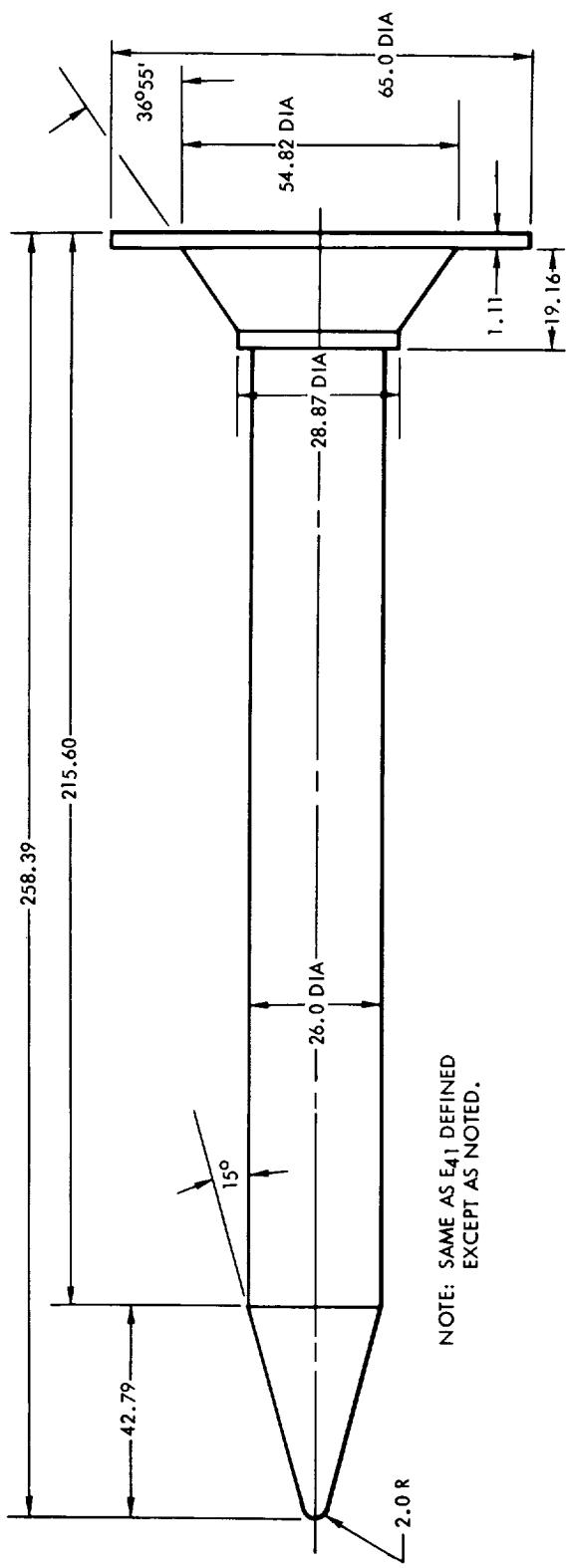
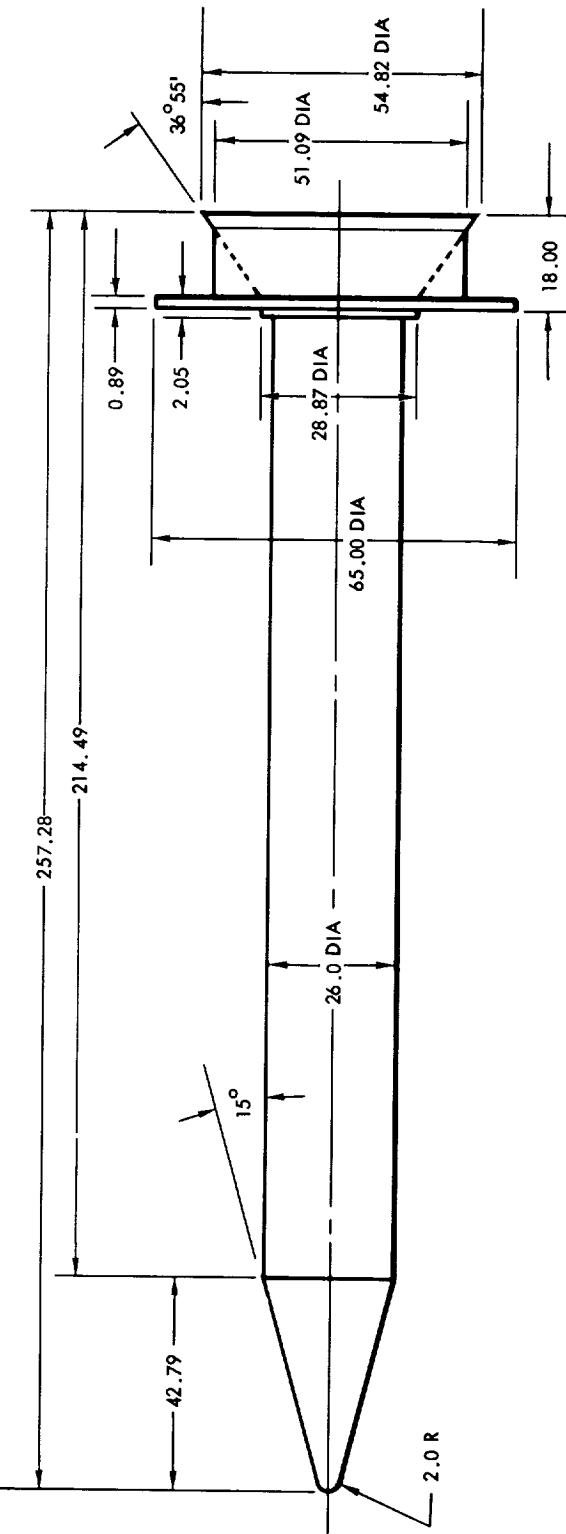
ESCAPE ROCKET E<sub>40</sub>  
(H-2)



ESCAPE ROCKET E<sub>41</sub>  
(DEFINED)

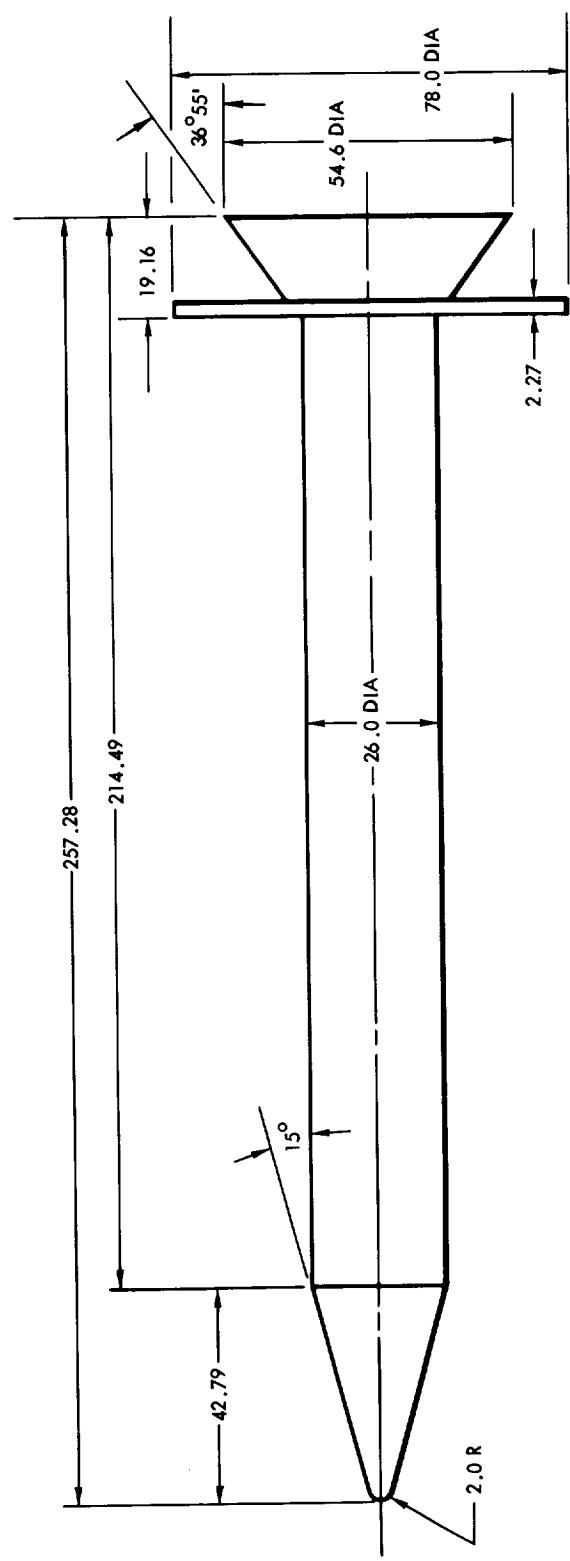
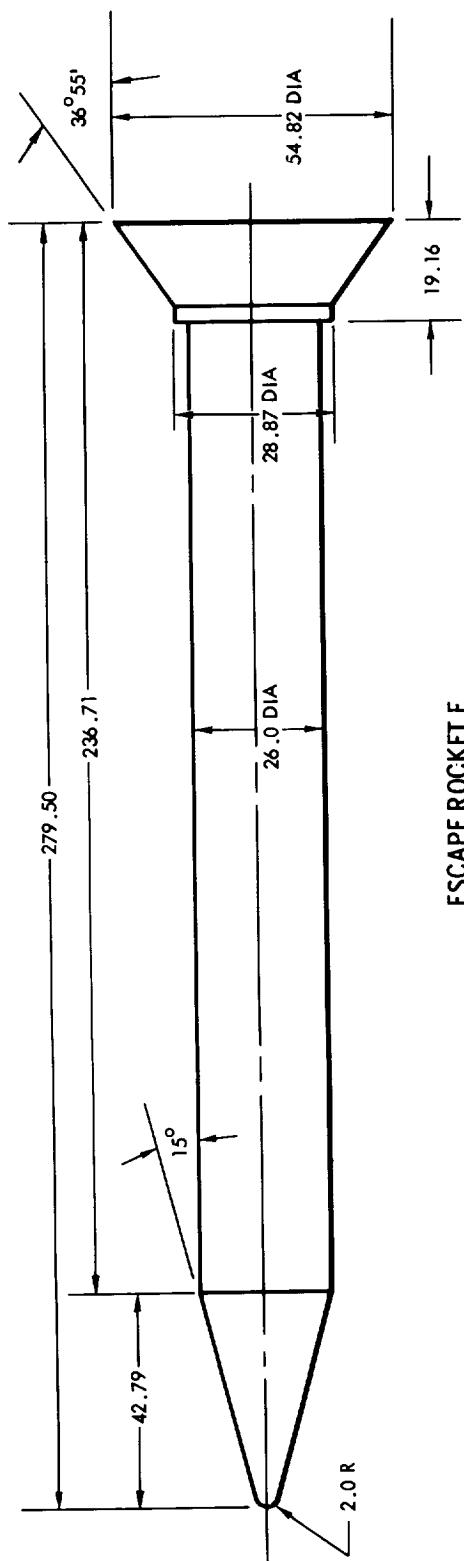
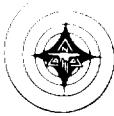
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>41</sub>  
(H-2)ESCAPE ROCKET E<sub>42</sub>

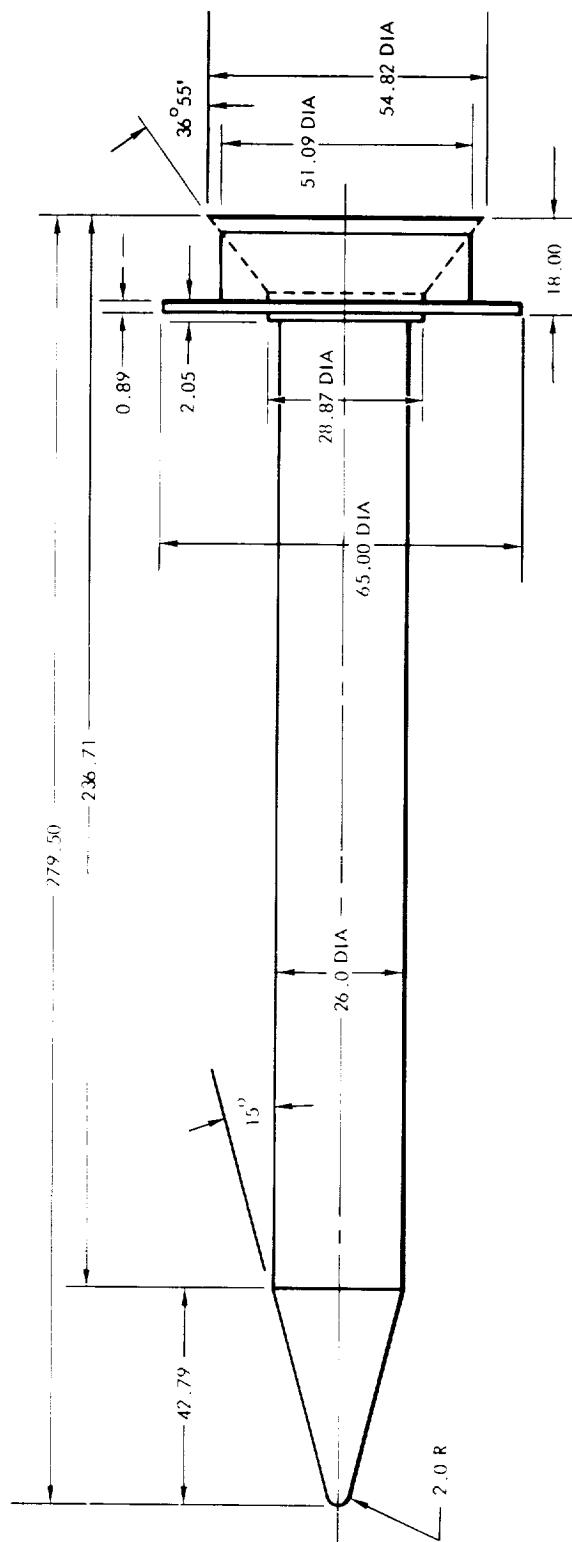
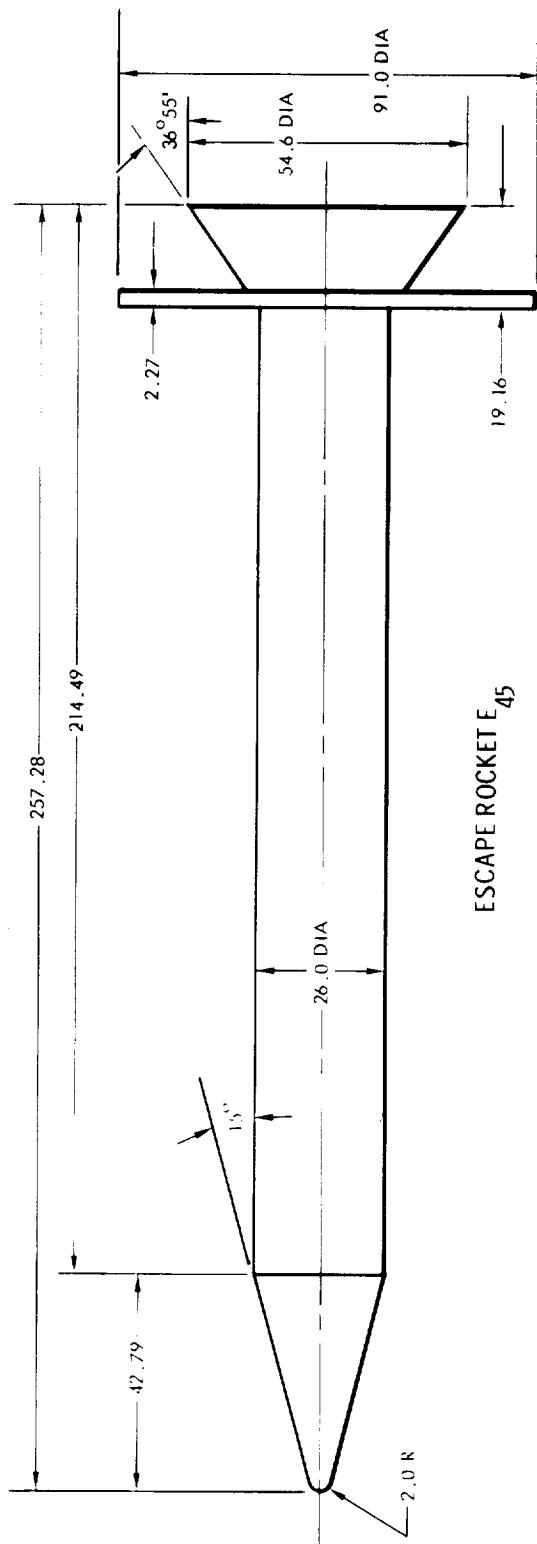
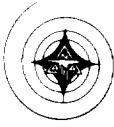
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

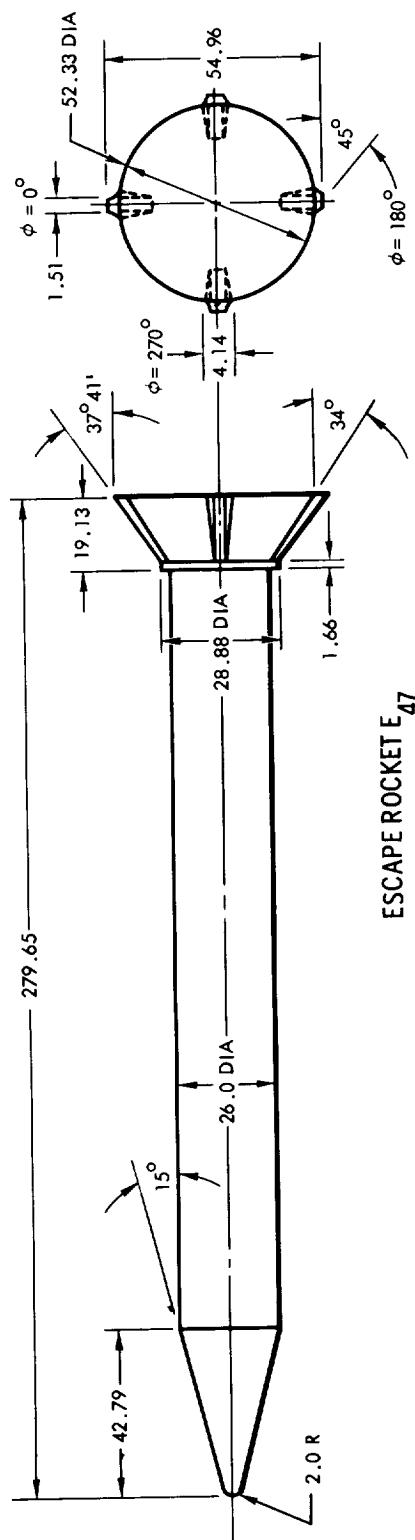
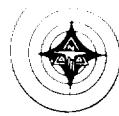
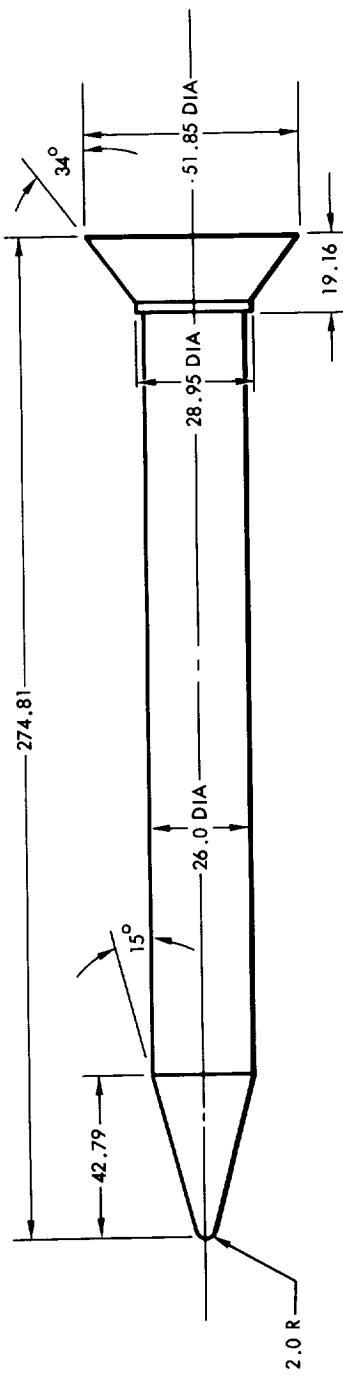
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

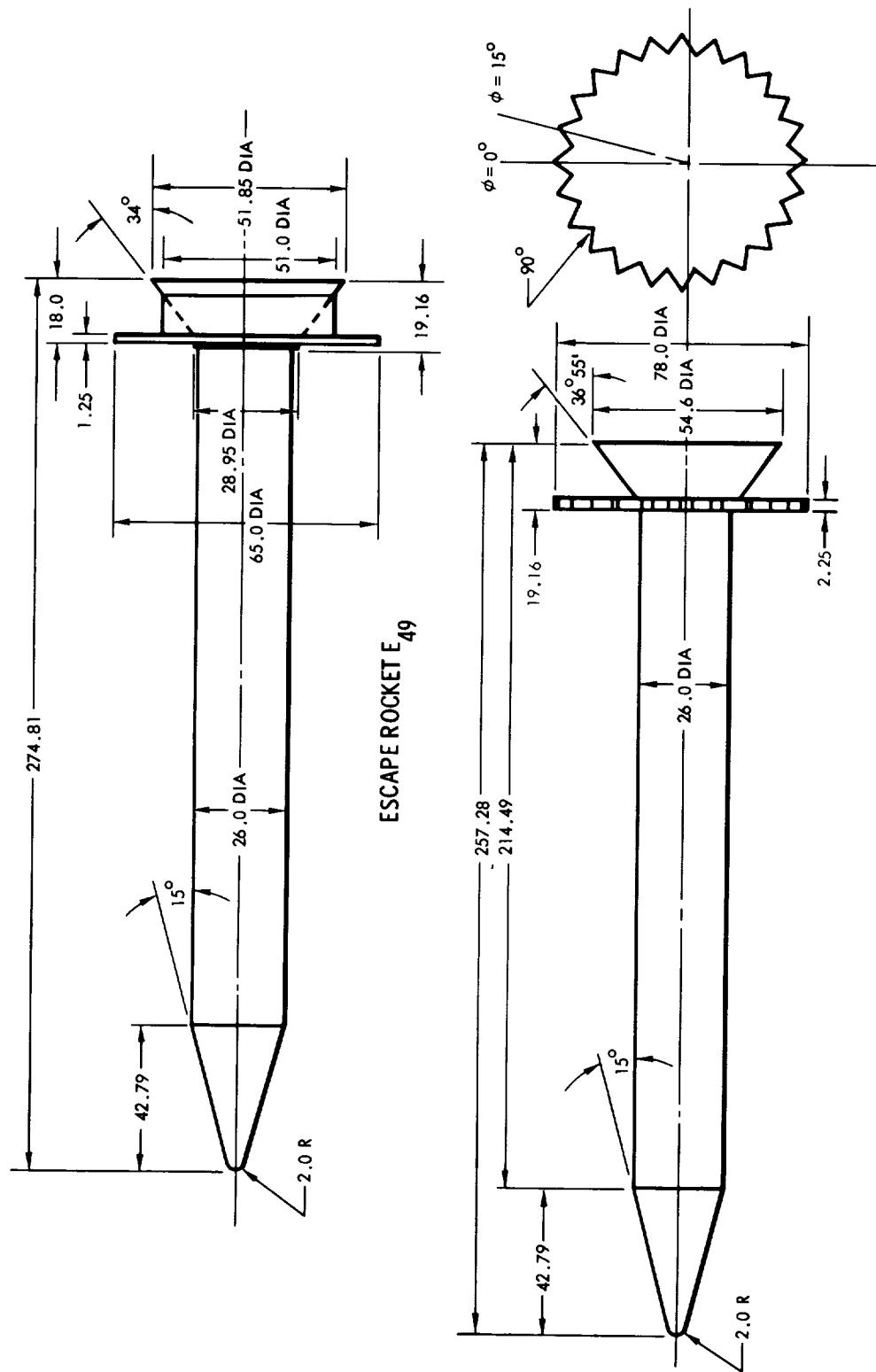
ESCAPE ROCKET E<sub>46</sub>

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>47</sub>ESCAPE ROCKET E<sub>48</sub>

FULL-SCALE DIMENSIONS IN INCHES

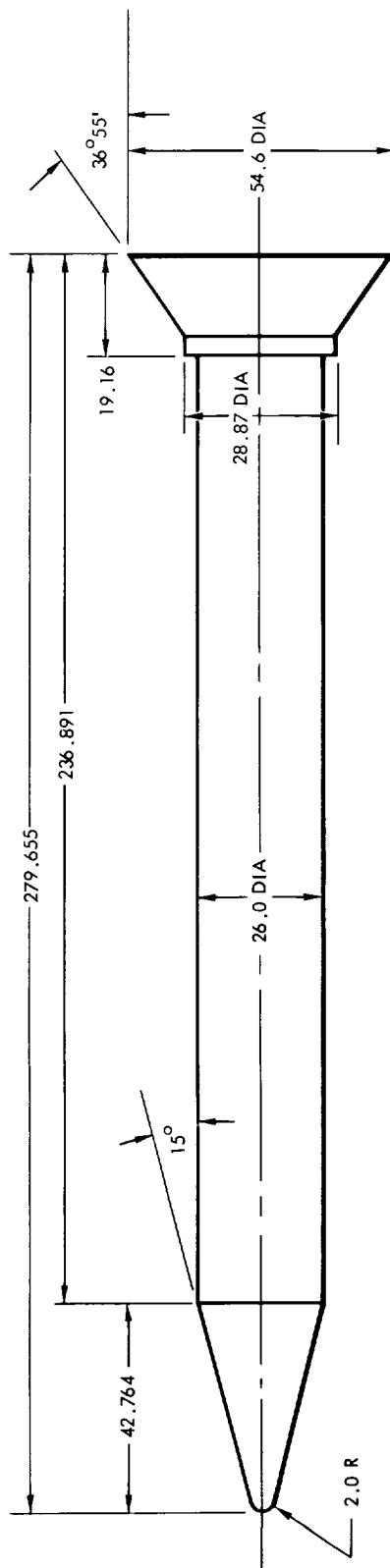
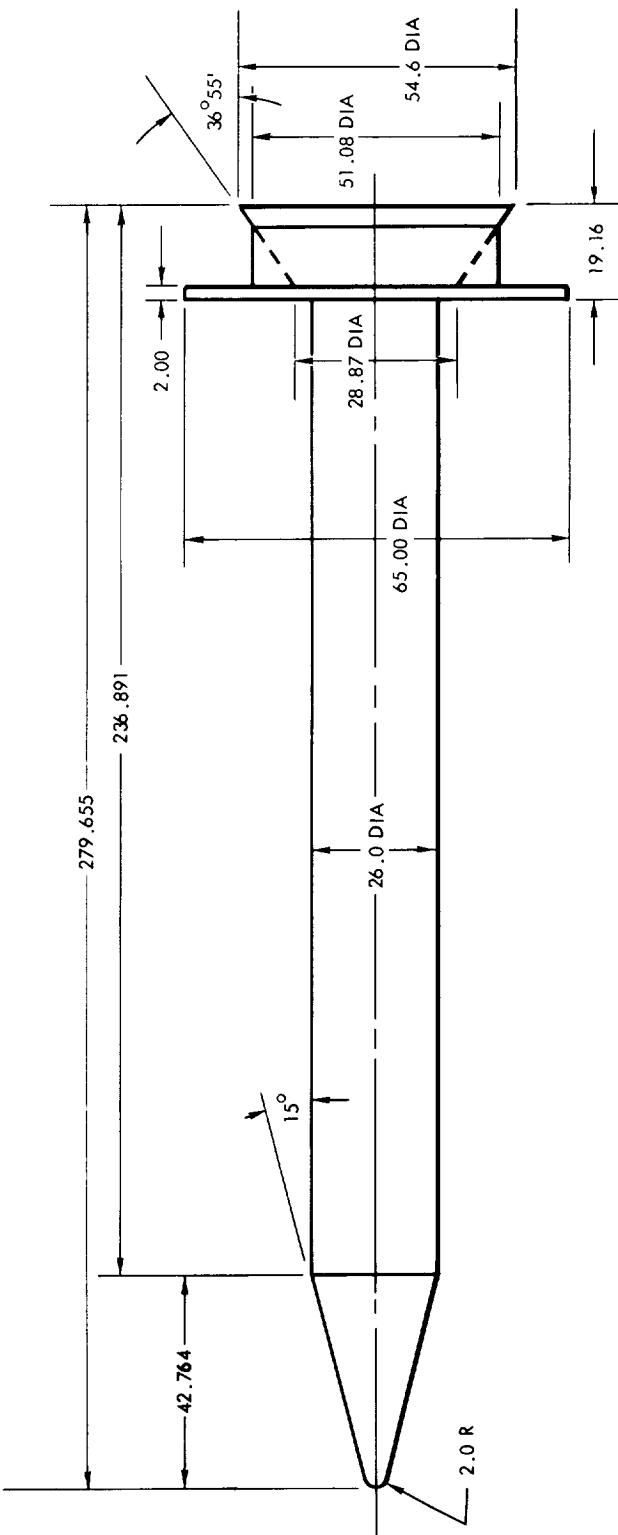
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

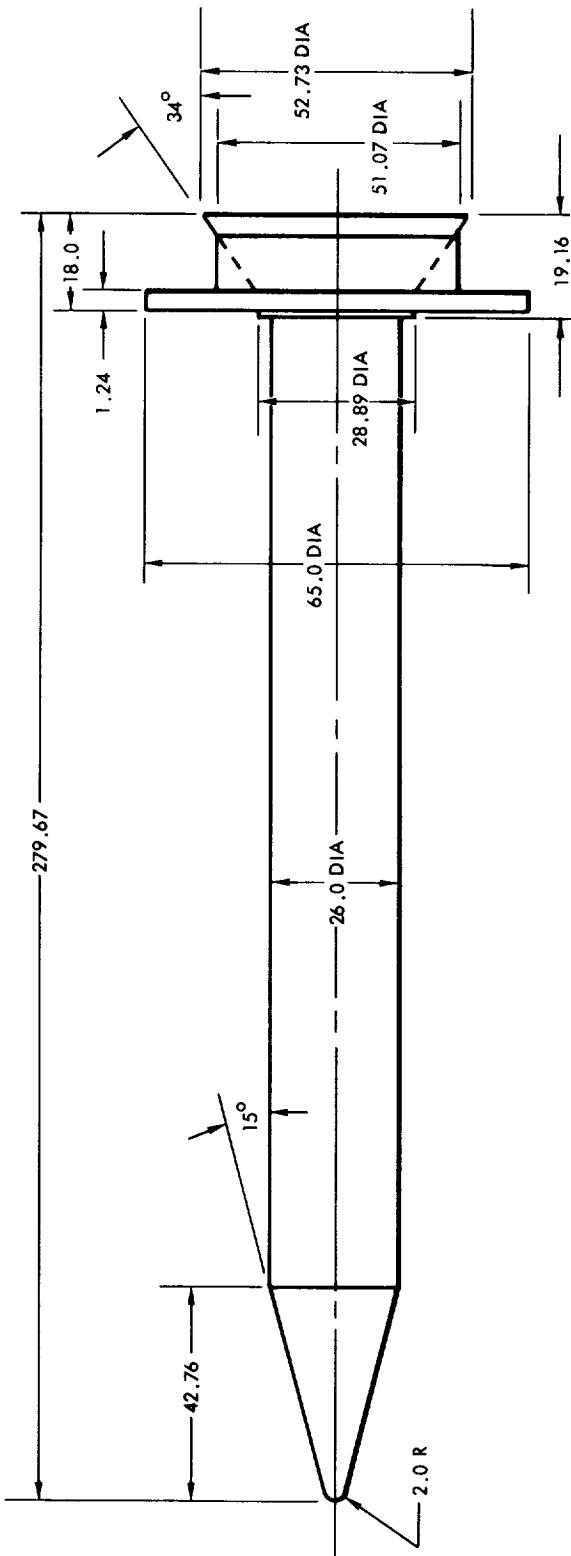
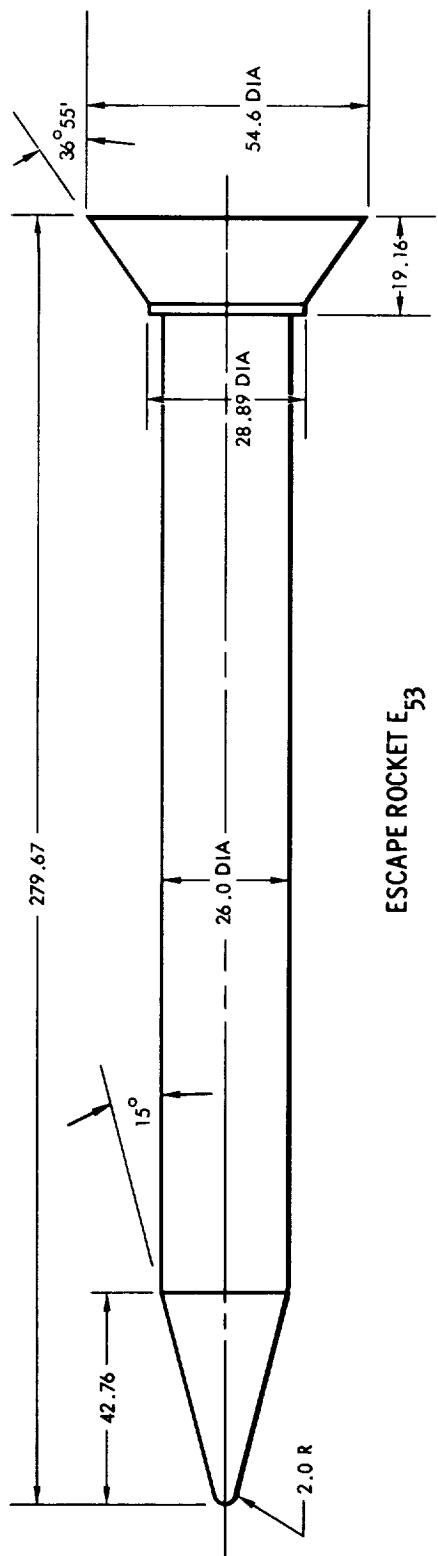
ESCAPE ROCKET E<sub>50</sub>

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>51</sub>ESCAPE ROCKET E<sub>52</sub>

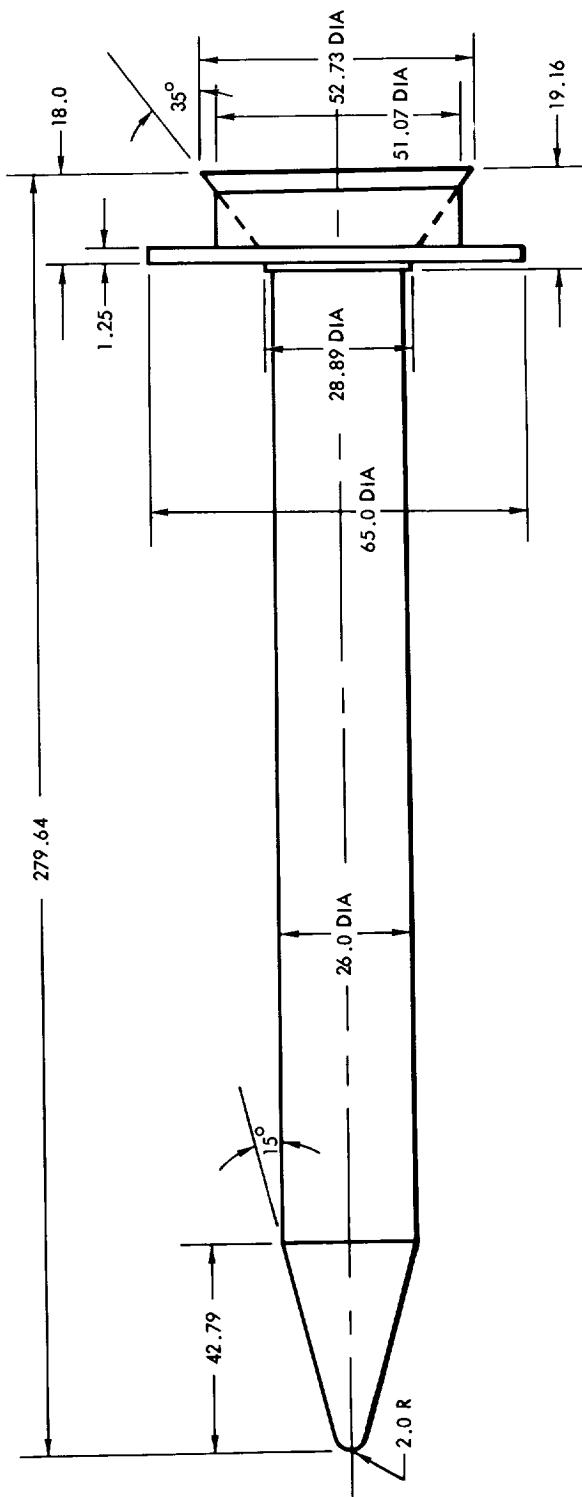
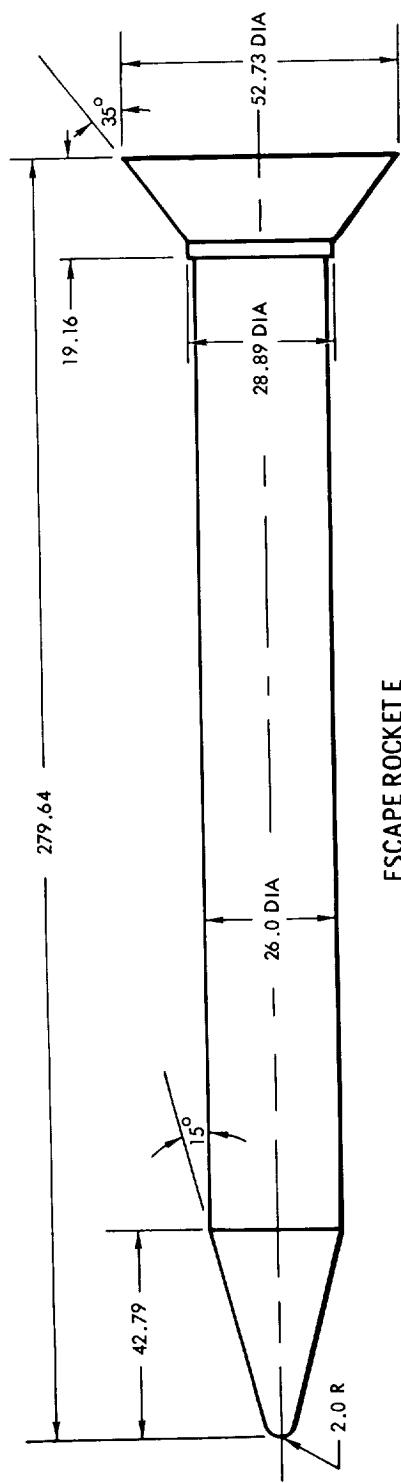
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



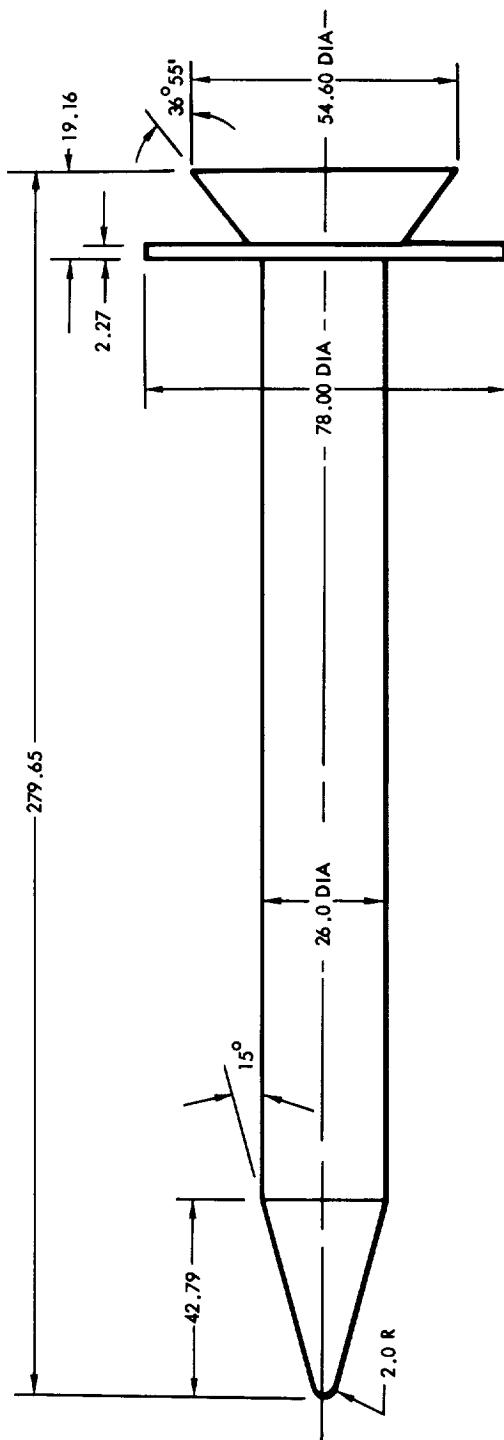
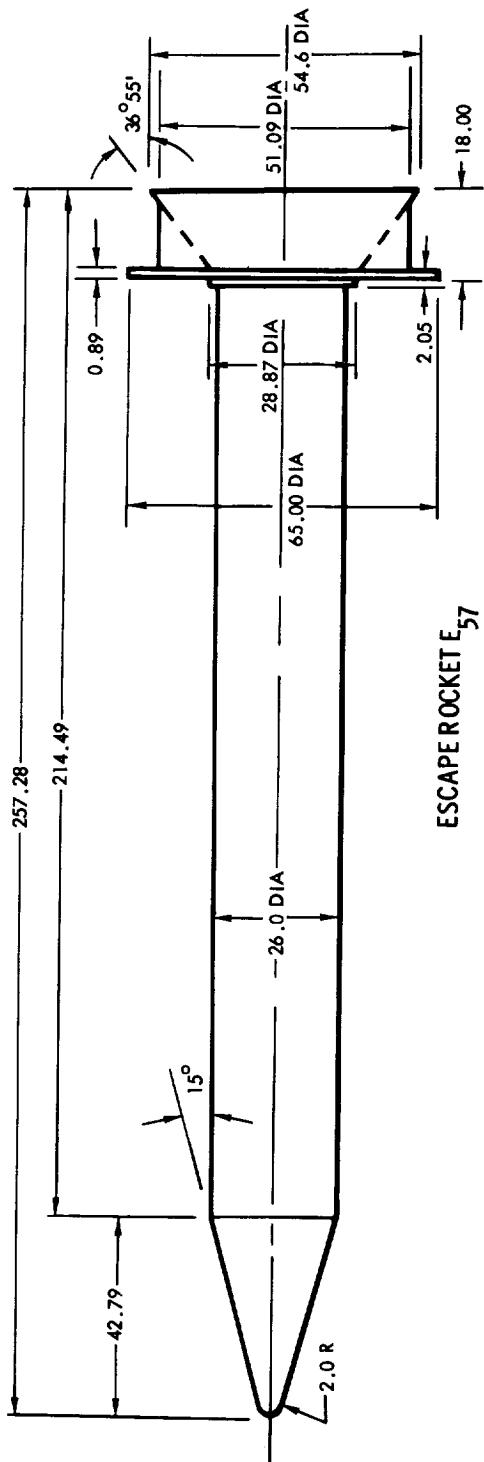
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



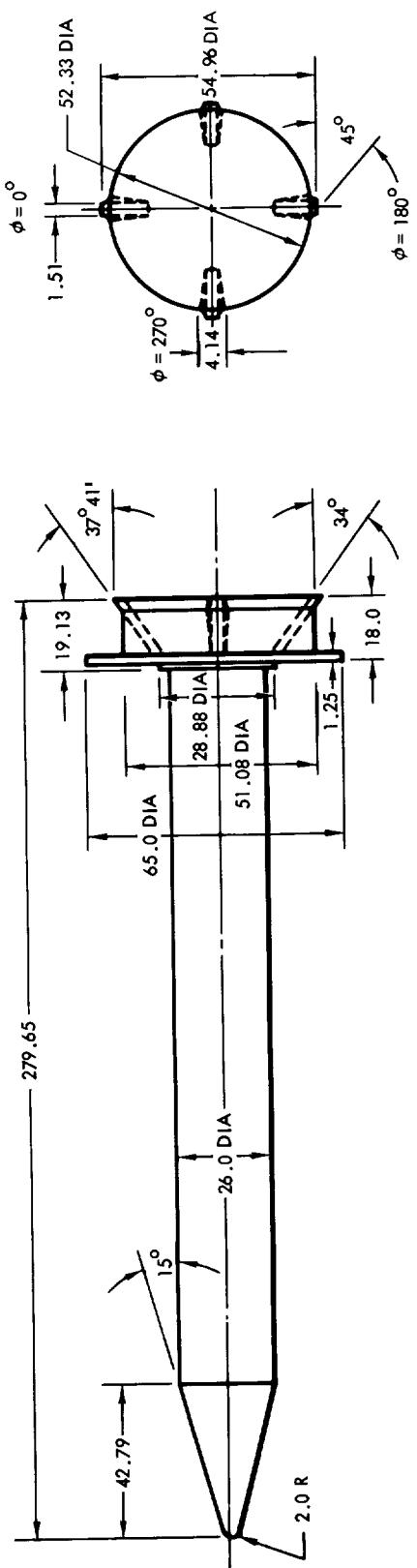
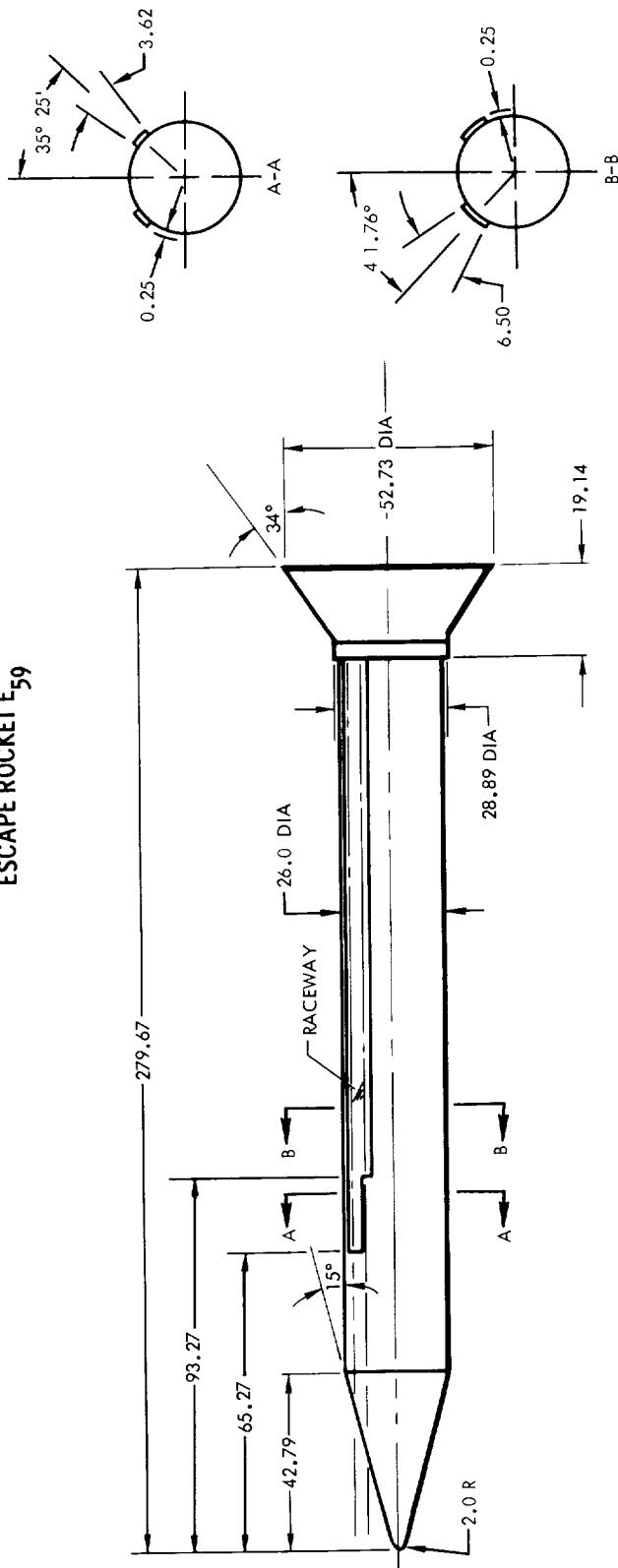
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

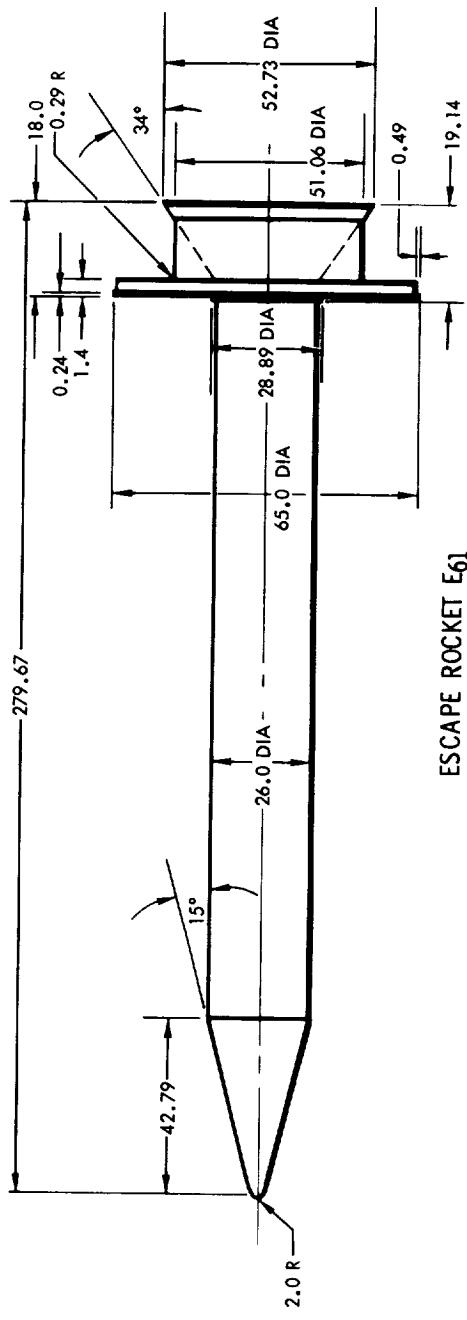
DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>59</sub>

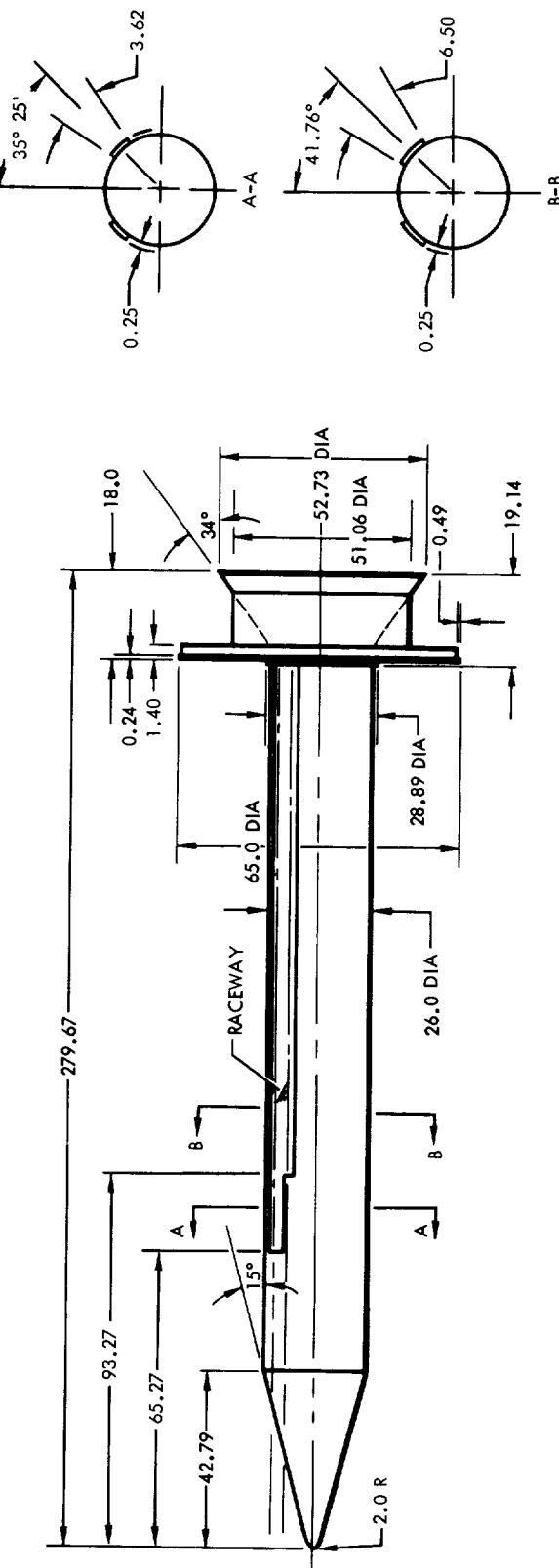
FULL-SCALE DIMENSIONS IN INCHES

ESCAPE ROCKET E<sub>60</sub>

DRAWING NOT TO SCALE



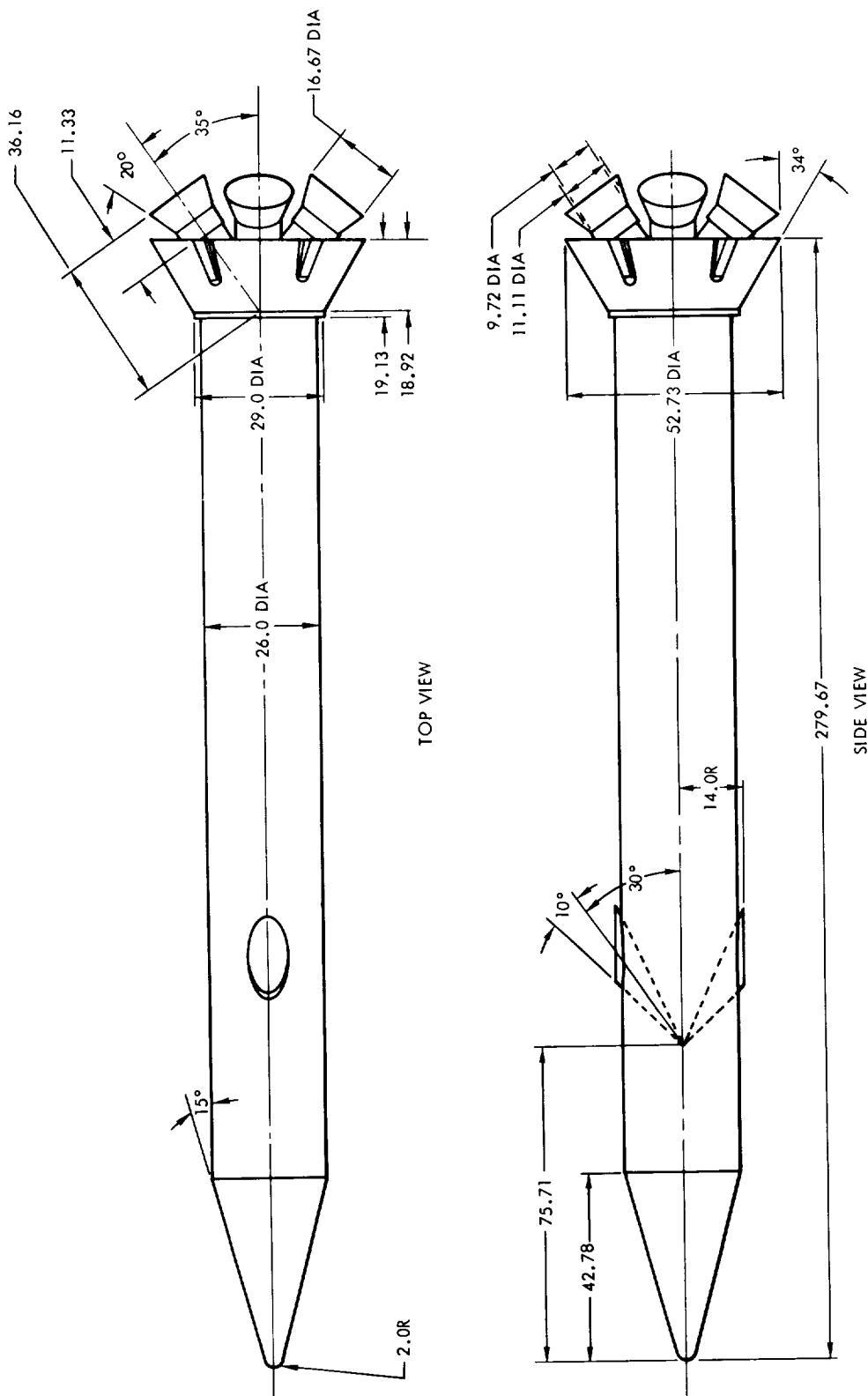
ESCAPE ROCKET E61



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE ROCKET E62

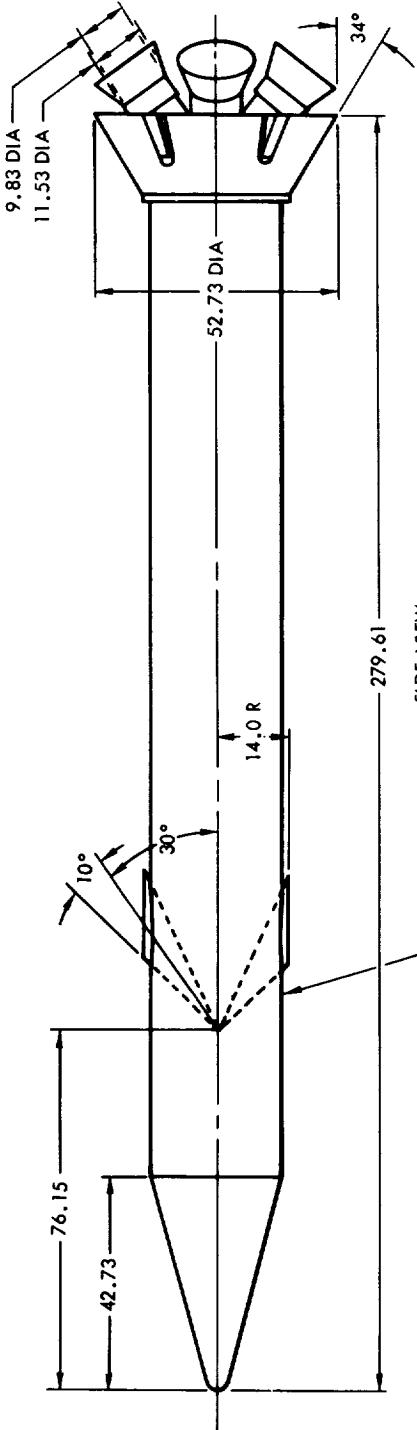
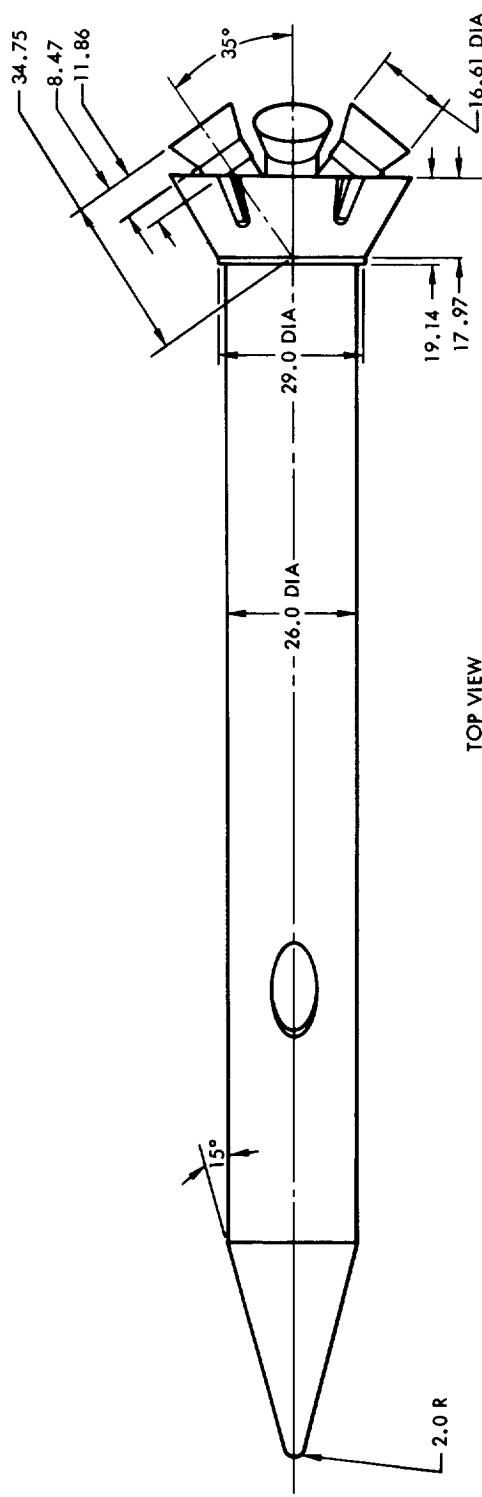
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

ESCAPE ROCKET E 63  
(DEFINED)

DRAWING NOT TO SCALE

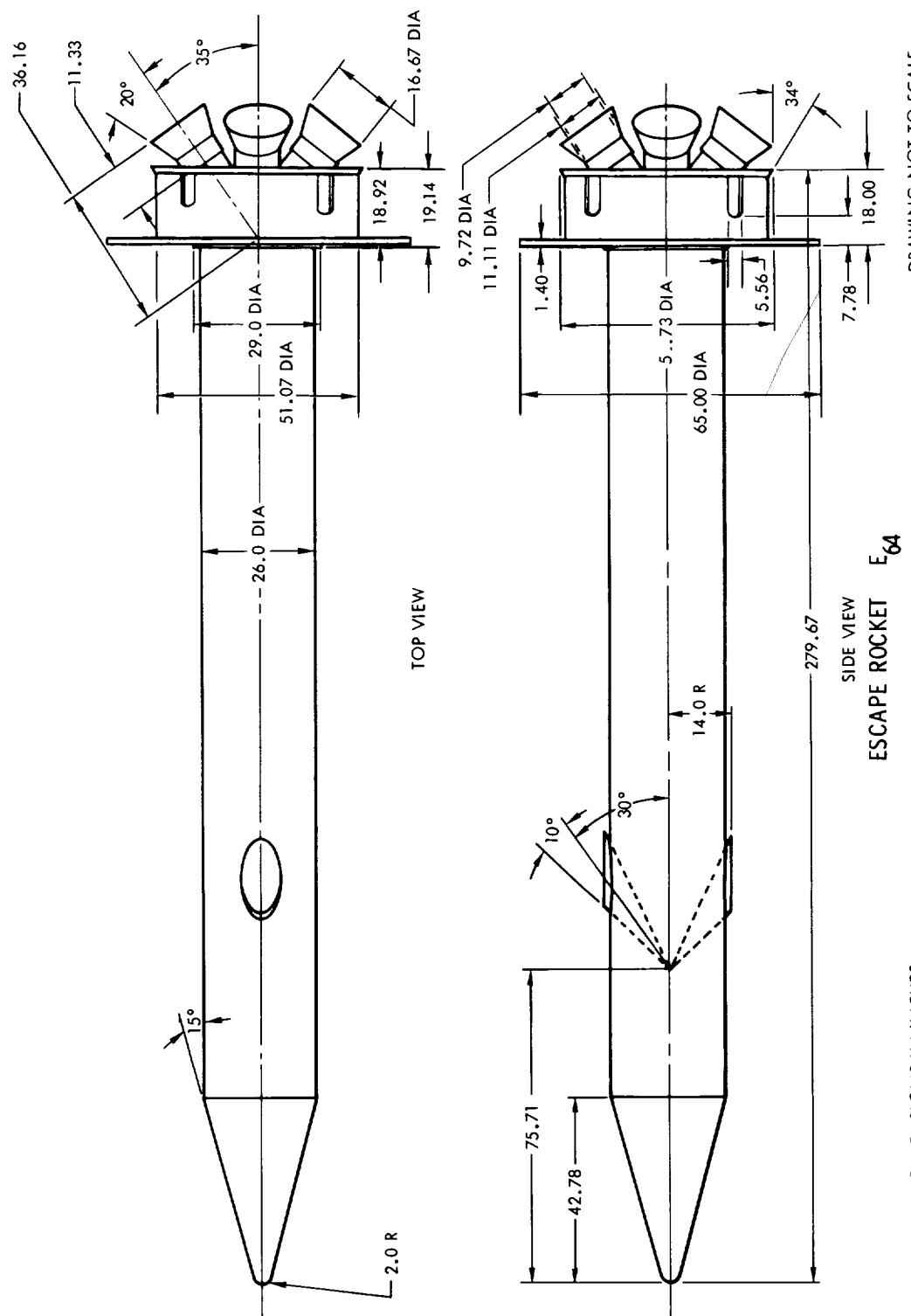
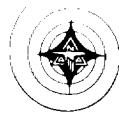


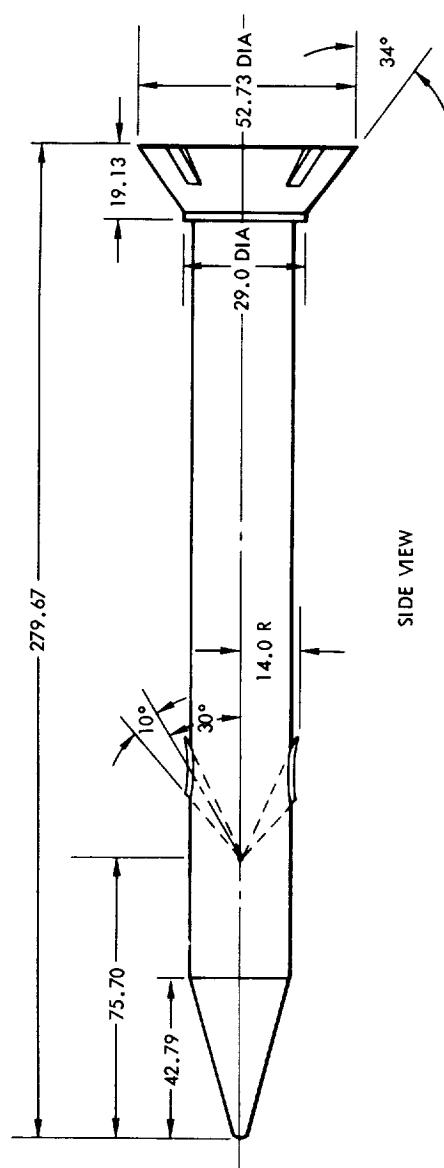
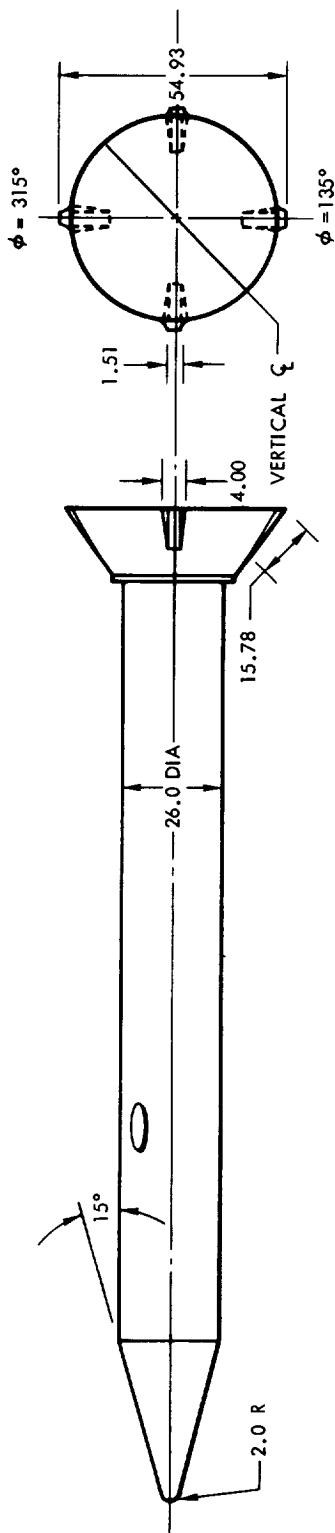
NOTE: Same as E63 Defined Except as Noted

FULL-SCALE DIMENSIONS IN INCHES

ESCAPE ROCKET E<sub>63</sub>  
(FD-5)

DRAWING NOT TO SCALE

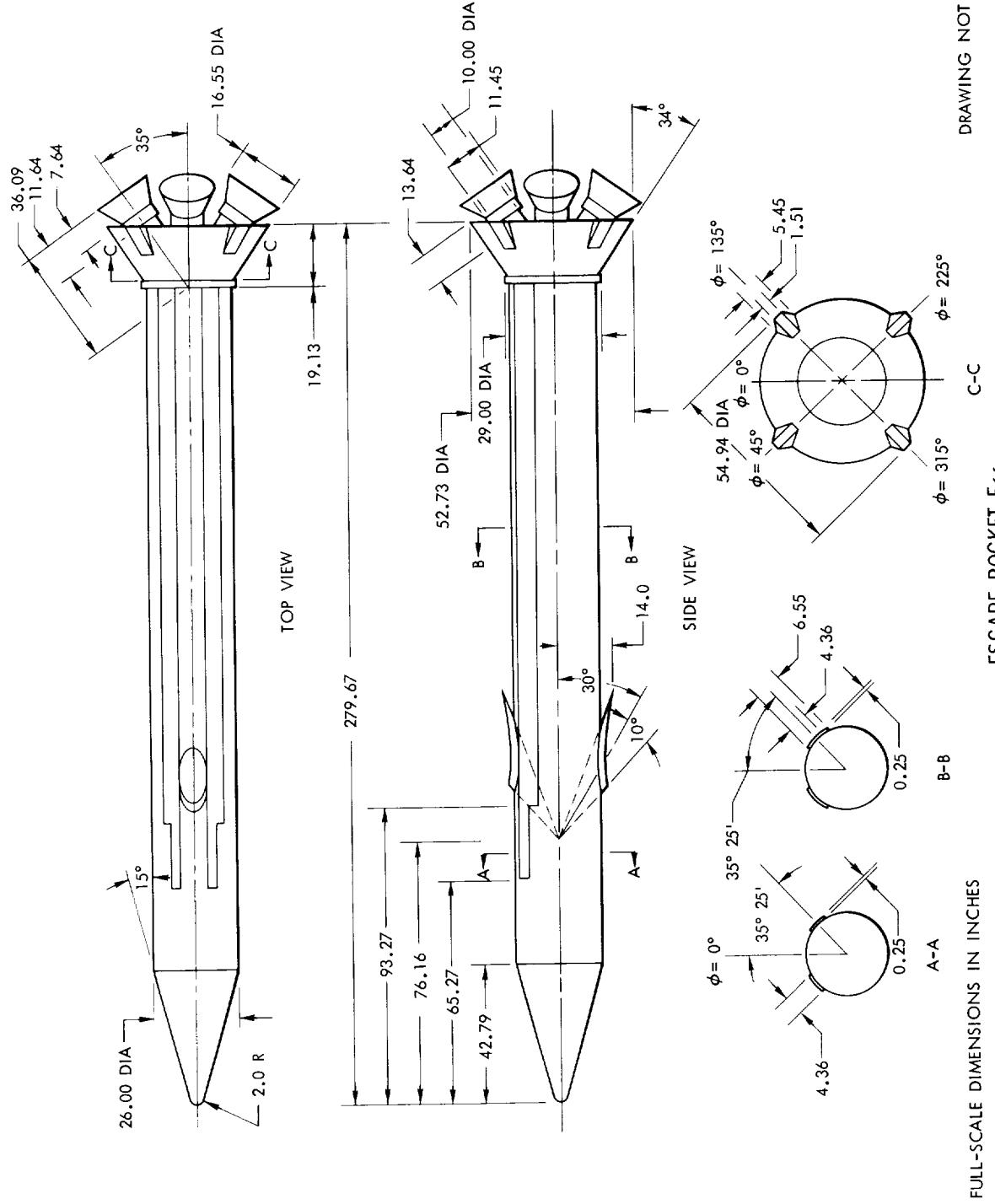


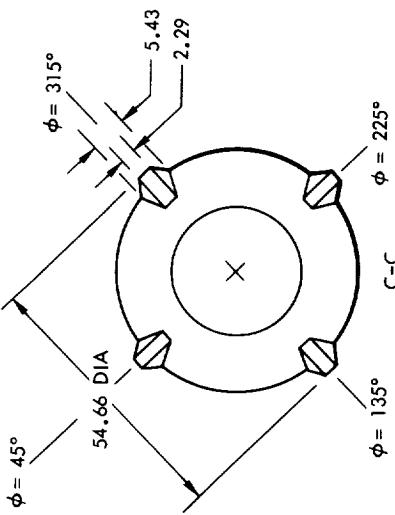
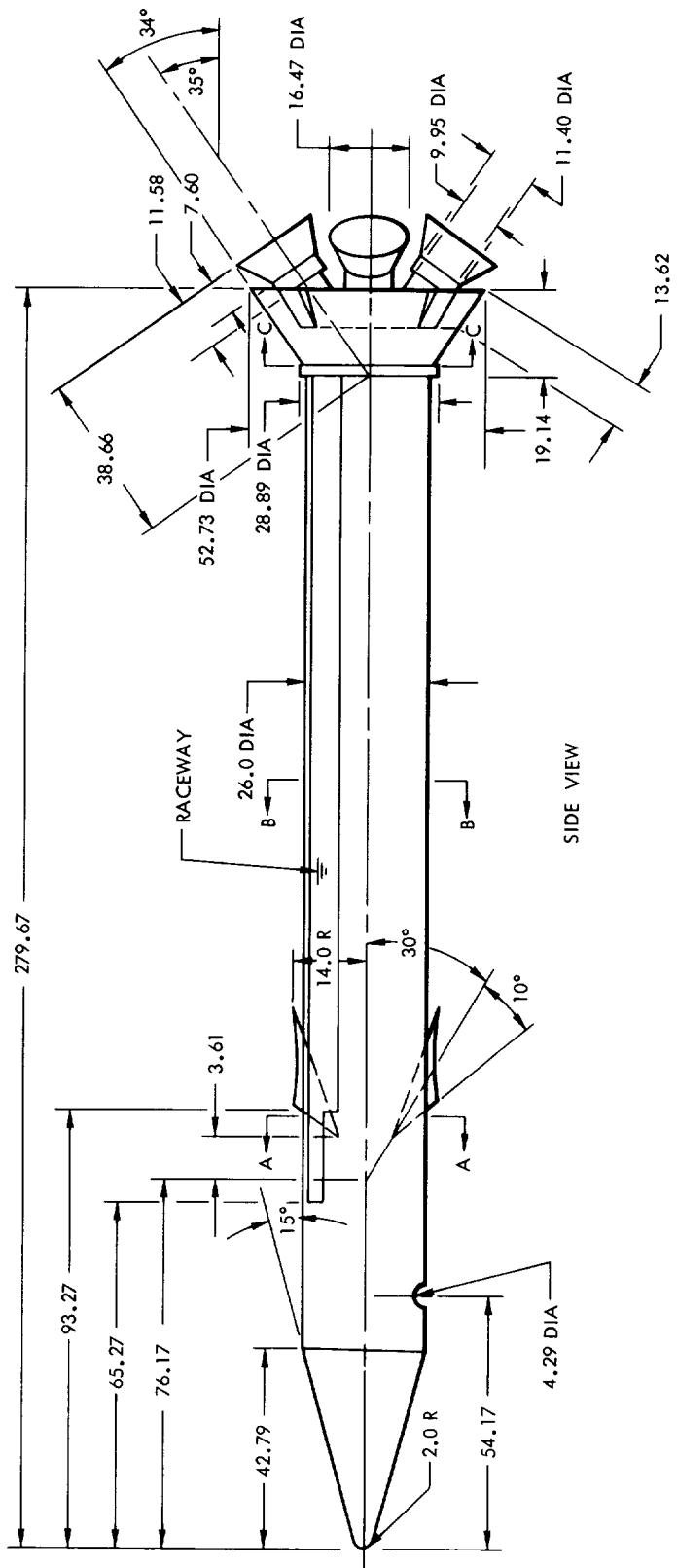


FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE ROCKET E<sub>65</sub>

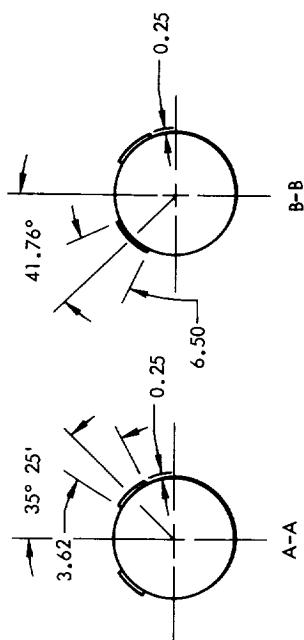


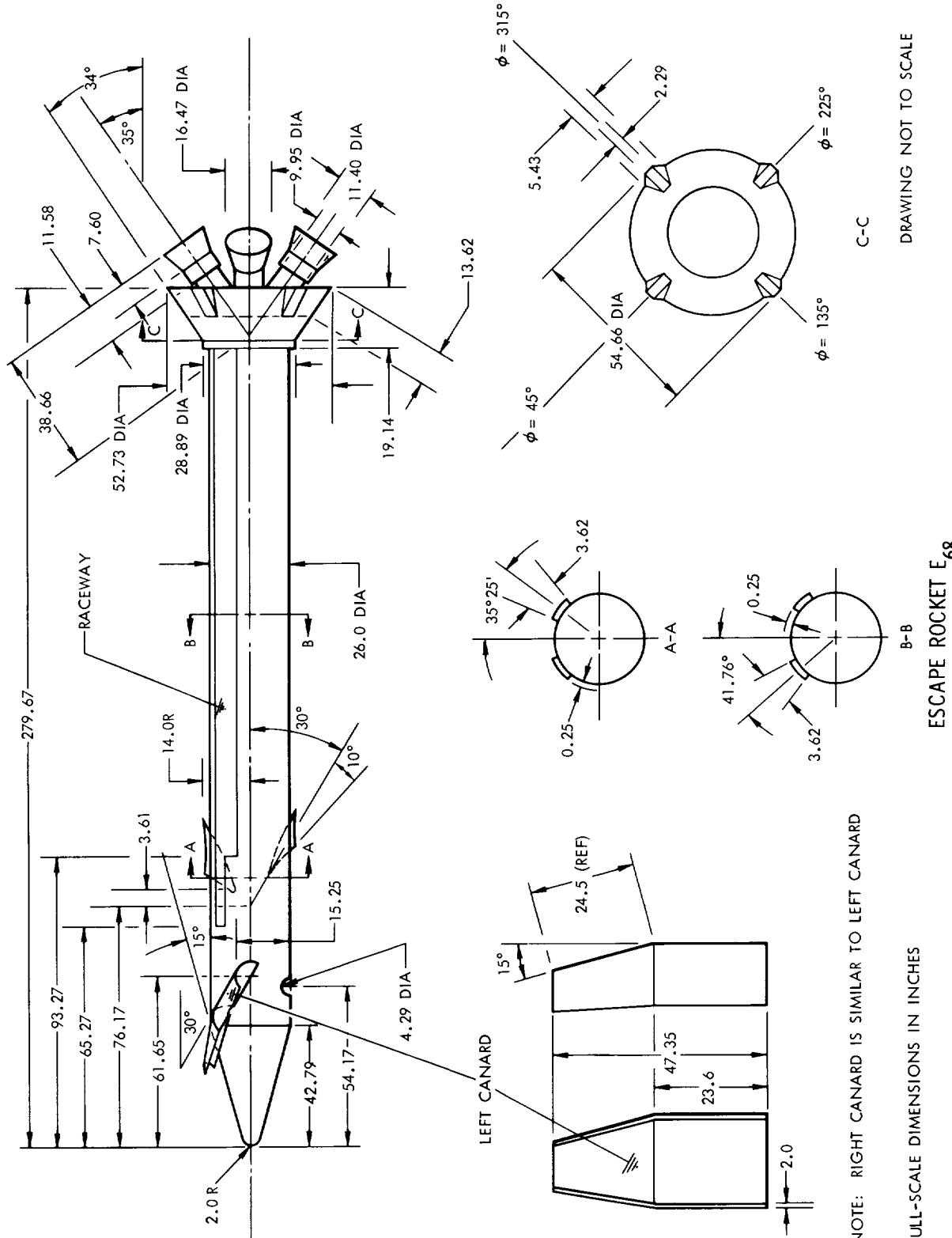
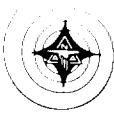


FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ESCAPE ROCKET E67





NOTE: RIGHT CANARD IS SIMILAR TO LEFT CANARD

## FULL-SCALE DIMENSIONS IN INCHES

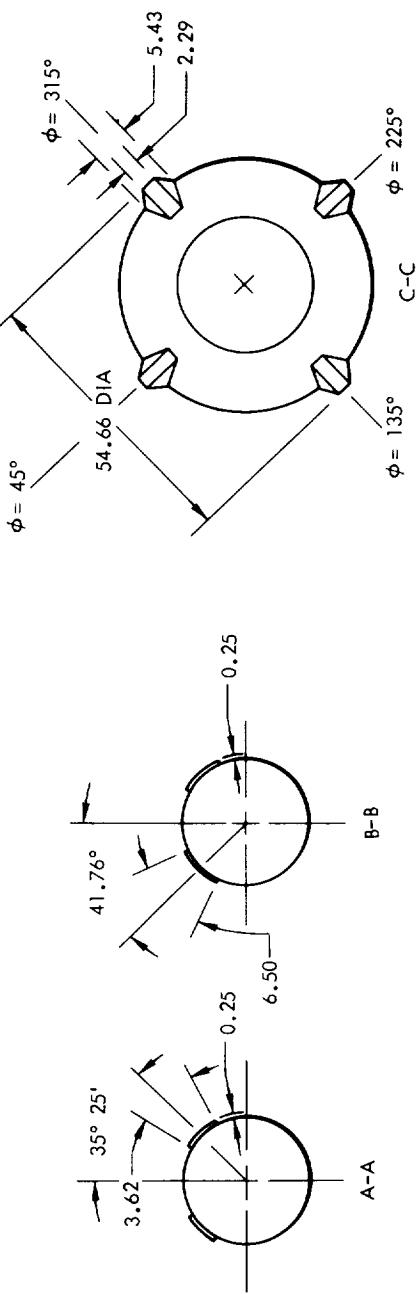
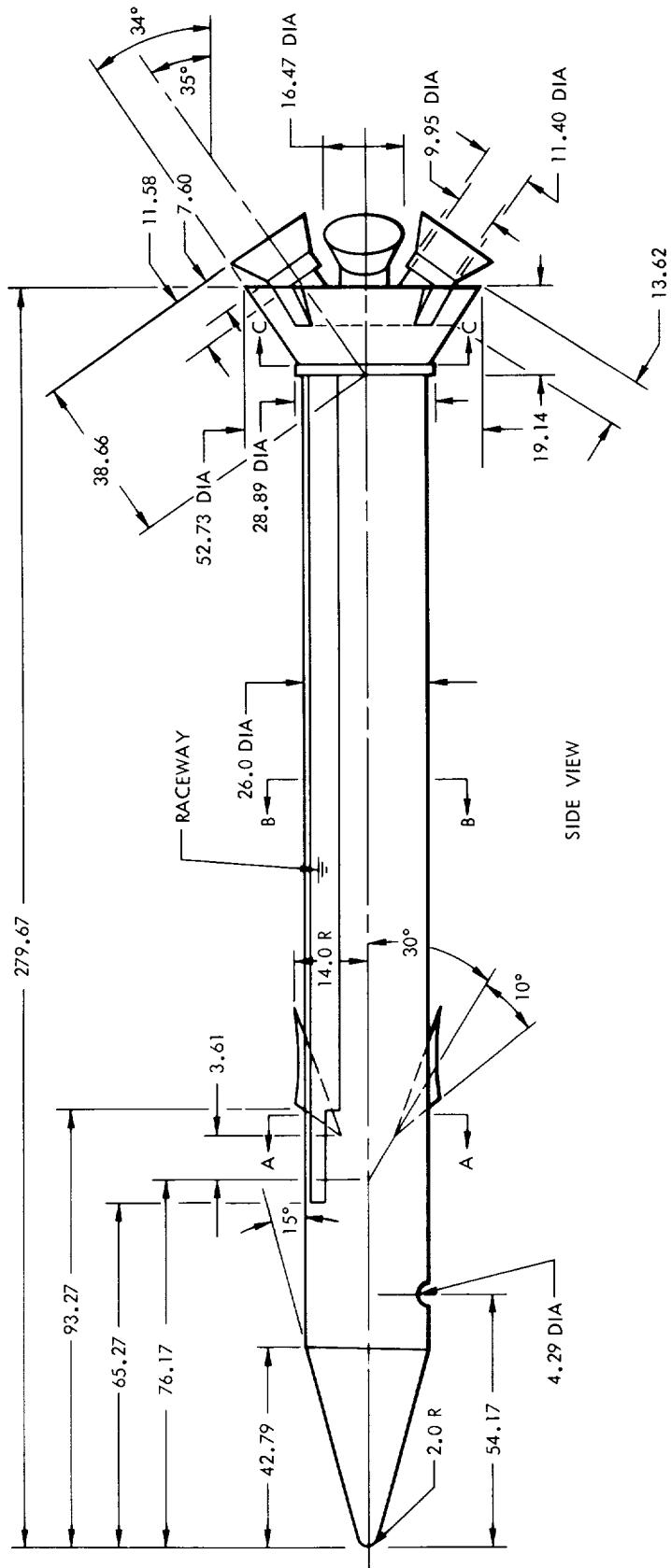
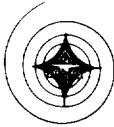
ESCAPE ROCKET E<sub>68</sub>

DRAWING NOT TO SCALE

## FULL-SCALE DIMENSIONS IN INCHES

3-97

SID 63-44



FULL-SCALE DIMENSIONS IN INCHES

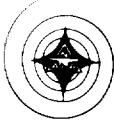
ESCAPE ROCKET E69

DRAWING NOT TO SCALE



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports	
S	Service Module - Cylindrical. Total length (measured from tangent point to command module) = 187.5 in. Diameter = 154.0 in.	E. F.	H-1	7121-01251-2	JPL 21-102	SID 62-354 SID 62-628	
S2	Cylindrical. - Total length (measured from tangent point to command module) = 154.53 in. Diameter = 154.0 in.	J. S.	PS-3	7121-01167-2	AEDC Tunnel B 304244-400	SID 62-752 SID 62-1137	
					AEDC Tunnel C 304244-500	SID 62-752 SID 62-1242	
					W. B.	SID 62-614	
					H-2	7121-01254-5 and part of -4 Tunnel B 304244-400	SID 62-993
						AEDC Tunnel C 304244-500	SID 62-614 SID 62-993
					G. U. W. B.	7121-01254-5 and part of -4 REY 451	LUPWT- SID 62-1011 SID 63-683



Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
S <sub>2</sub> (Cont)		G. U.	H-2	7121-01268	AEDC Tunnel C	SID IOL 223-140-63 -023
S <sub>3</sub>	Cylindrical. - Total length (measured from tangent point to command module) = 246.53 in. Diameter = 154.0 in.	R. B. PSTL- 1	PSTL-	7121-01173	Ames 106 (9 by 7)	SID 62-799 SID 62-809
		R. B. D. H. PSTL- 1	PSTL-	7121-01173	TWT-77	SID 62-1353 -1 and 2 SID 63-1480
		E. F. PSTL- 1	PSTL-	7121-01173	Ames 102 (14 by 14)	SID 62-745 SID 62-929 SID 62-1151
		R. B. G. H. PSTL- 1	PSTL-	7121-01173	Ames 111 (8 by 7) 86 (11 by 11)	SID 62-799 SID 62-1353 -1 and 2 SID 63-1480
	(Same as S <sub>2</sub> except a 92.0 adapter is added.)	M. C. E. P. SD-1	SD-1	7121-01211	LTD <sub>T</sub> 48 (16 by 16)	SID 62-841 SID 63-33
S <sub>4</sub>	Cylindrical. - Total length (measured from tangent point to command module and including a 105.00 in. adapter) = 253.50 in. Diameter = 154.00 in.	J. W.	FSL-1	LH-100 7121-01136	Ames 87 (11 by 11) 105 (9 by 7) 110 (8 by 7)	SID 62-805 SID 62-1143



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
S <sub>4</sub> (Cont)	B. C. FSL-1	LH-100 7121-01136	AEDC Tunnel A	304244- 300	SID 62-806 SID 62-1144	
			AEDC Tunnel B	304244- 400	SID 62-806 SID 62-1144	
	D. C. FSL-1	LH-100 7121-01136	TWT-84		SID 62-670 SID 63-35	
	B. C. FSL-1	LH-100 7121-01136	NACAL- 104		SID 62-669 SID 62-1436	
S <sub>5</sub>	Cylindrical. - Total length = 105.0 in. Diameter = 154.0 in.	B. C. FSL-1	LH-100 7121-01136	AEDC Tunnel A	SID 62-806 SID 62-1144	
				304244- 300		
				AEDC Tunnel B	SID 62-806 SID 62-1144	
				304244- 400		
						(Same as S <sub>4</sub> except adapter only.)



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
S <sub>6</sub>	Cylindrical-total length (measured from tangent point to command module and including a 135.00 in. adapter) = 305.54 in. Diameter = 154.0 in.	W. B. D. E.	HL-1	7121-01261-2	AEDC Tunnel C 304244-500	SID 62-1214 SID 63-688
		W. B. D. E.	HL-1B	Part of 7121-01254-4; 7121-01261-9 and part of 7121-01261-11	AEDC Tunnel C 304244-500	SID 62-1214 SID 63-688
		G. U. W. B.	HL-1	7121-01261-2	LUPWT- REY 451	SID 62-1011 SID 63-683
		G. U. W. B.	HL-1B	Part of 7121-01254-4; 7121-01261-9 and part of -11	LUPWT- REY 451	SID 62-1011 SID 63-683
		G. U.	HL-1B	7121-01268	AEDC Tunnel C VT-1244	SID IOL 223-140-63 -023 SID 63-1135
S <sub>7</sub>	Total length (measured from tangent point to command module and including a 350.00 in. adapter) = 532.40 in. The service module and the first 36.00 in. of the adapter are cylindrical in shape; diameter = 154.00 in. The remainder of the adapter tapers to a 260.00 in. diameter.	J. S. P. B.	PSTL -2	Part of 7121-01191-4 and part of 7121-01191-2	None	Not Tested

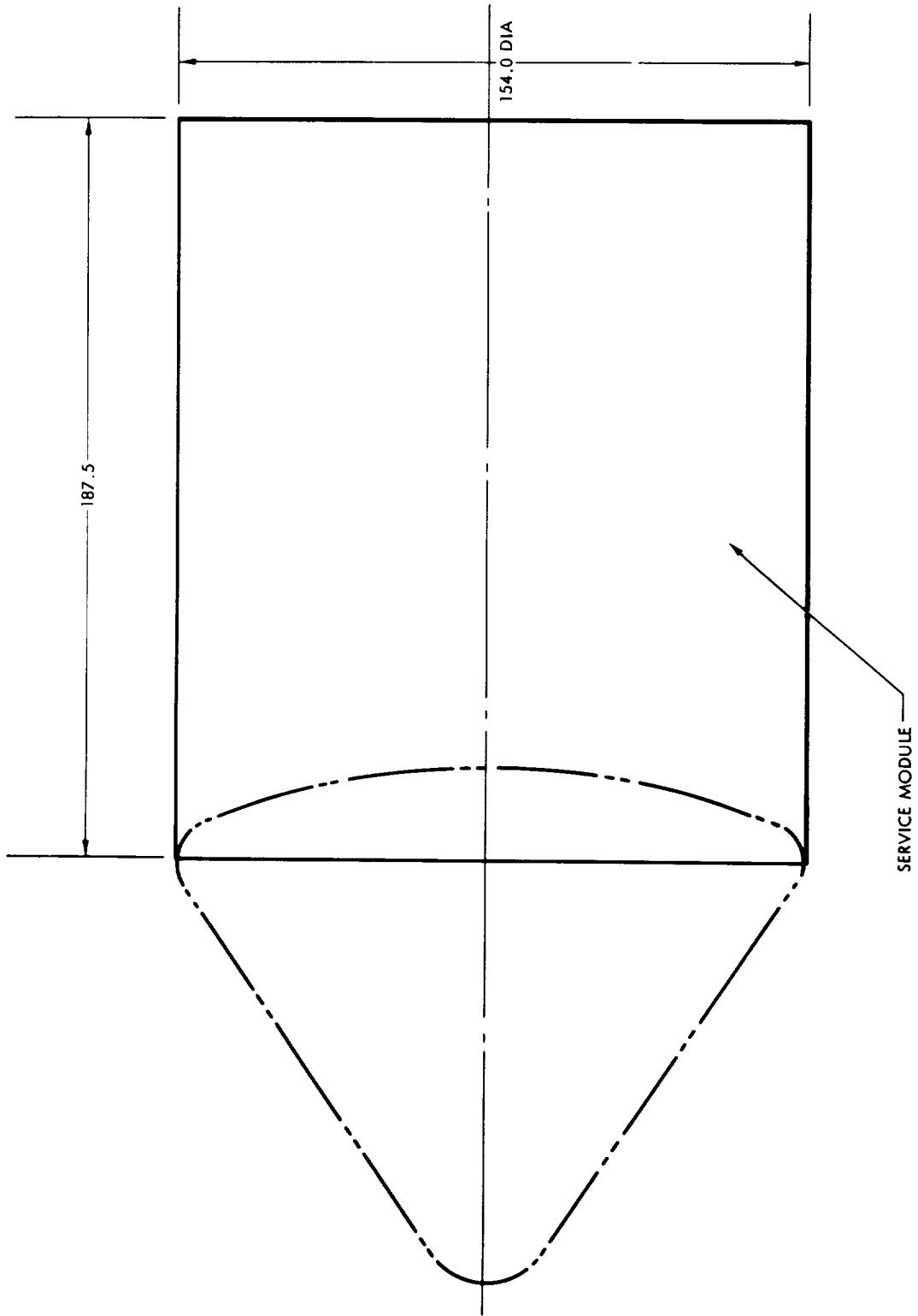


Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
S <sub>8</sub>					
S <sub>9</sub>	Total length (measured from the tangent point to command module to LEM adapter) = 182.40 in. Module is cylindrical in shape; diameter = 154.0 in.	J. S. P. B.	PSTL-2 01191-4	Part of 7121 - 37 (9 by 7) 37 (11 by 11)	Ames SID 63-1027

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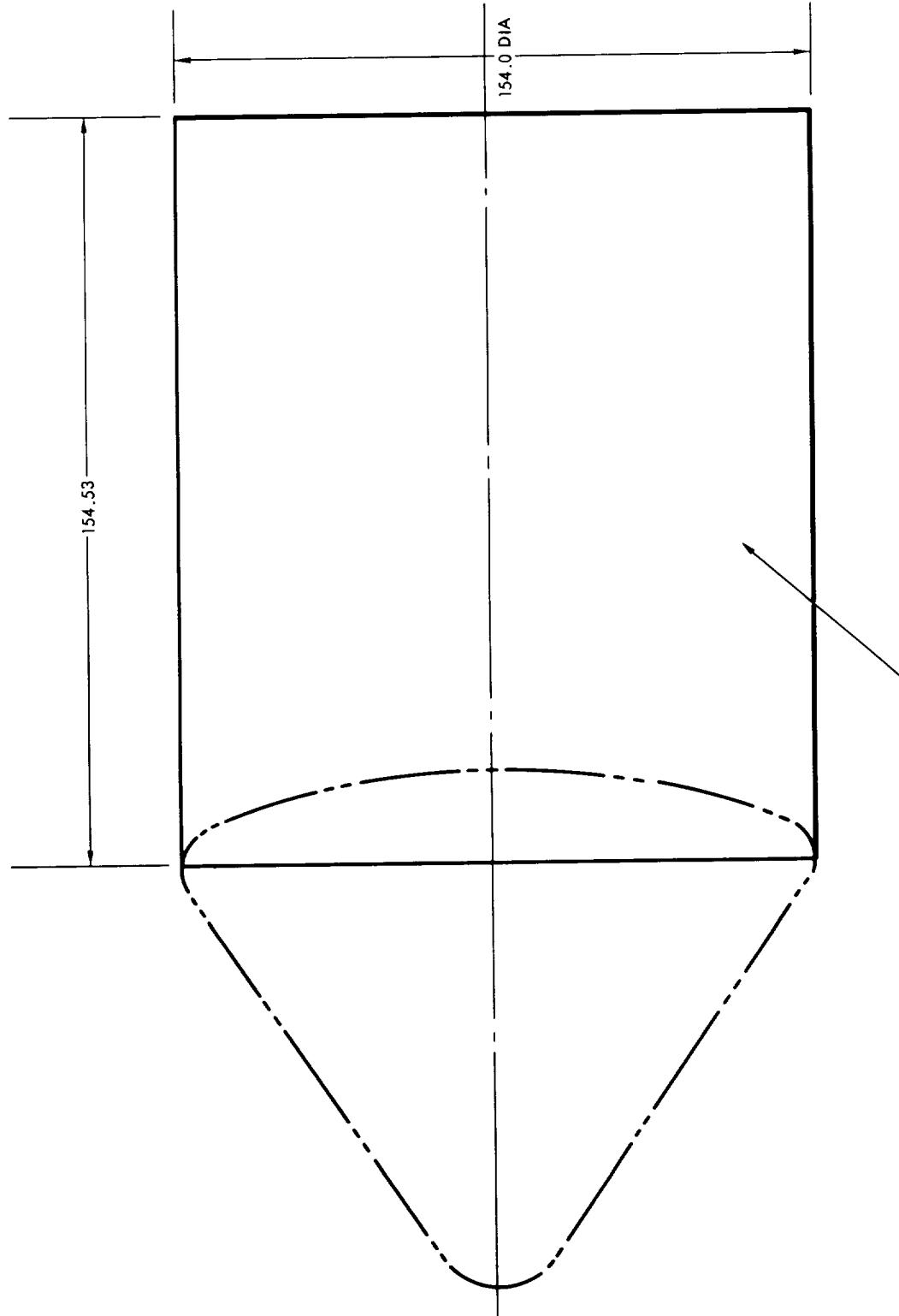


SPACE and INFORMATION SYSTEMS DIVISION



FULL-SCALE DIMENSIONS IN INCHES

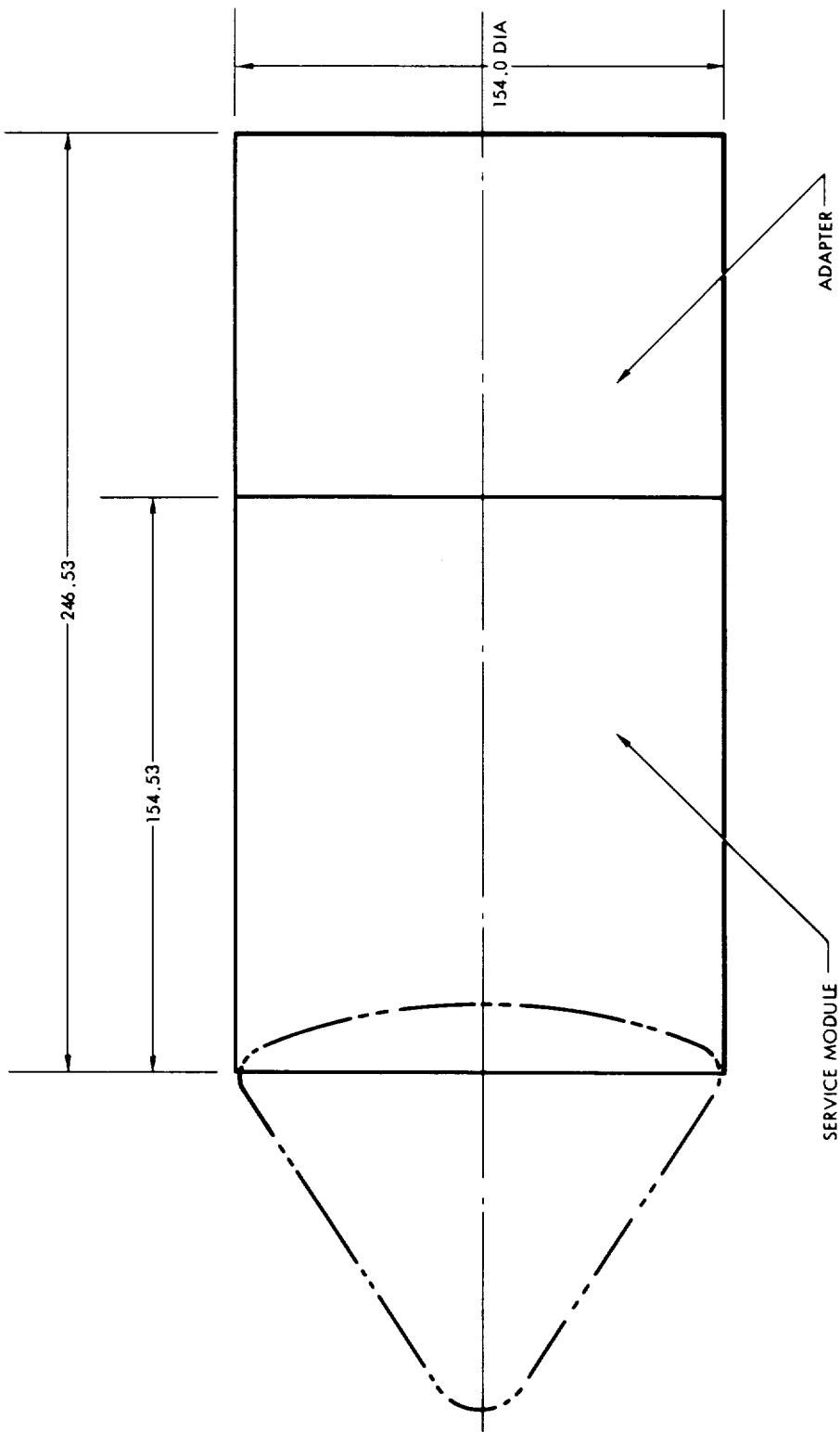
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

SERVICE MODULE S<sub>2</sub>

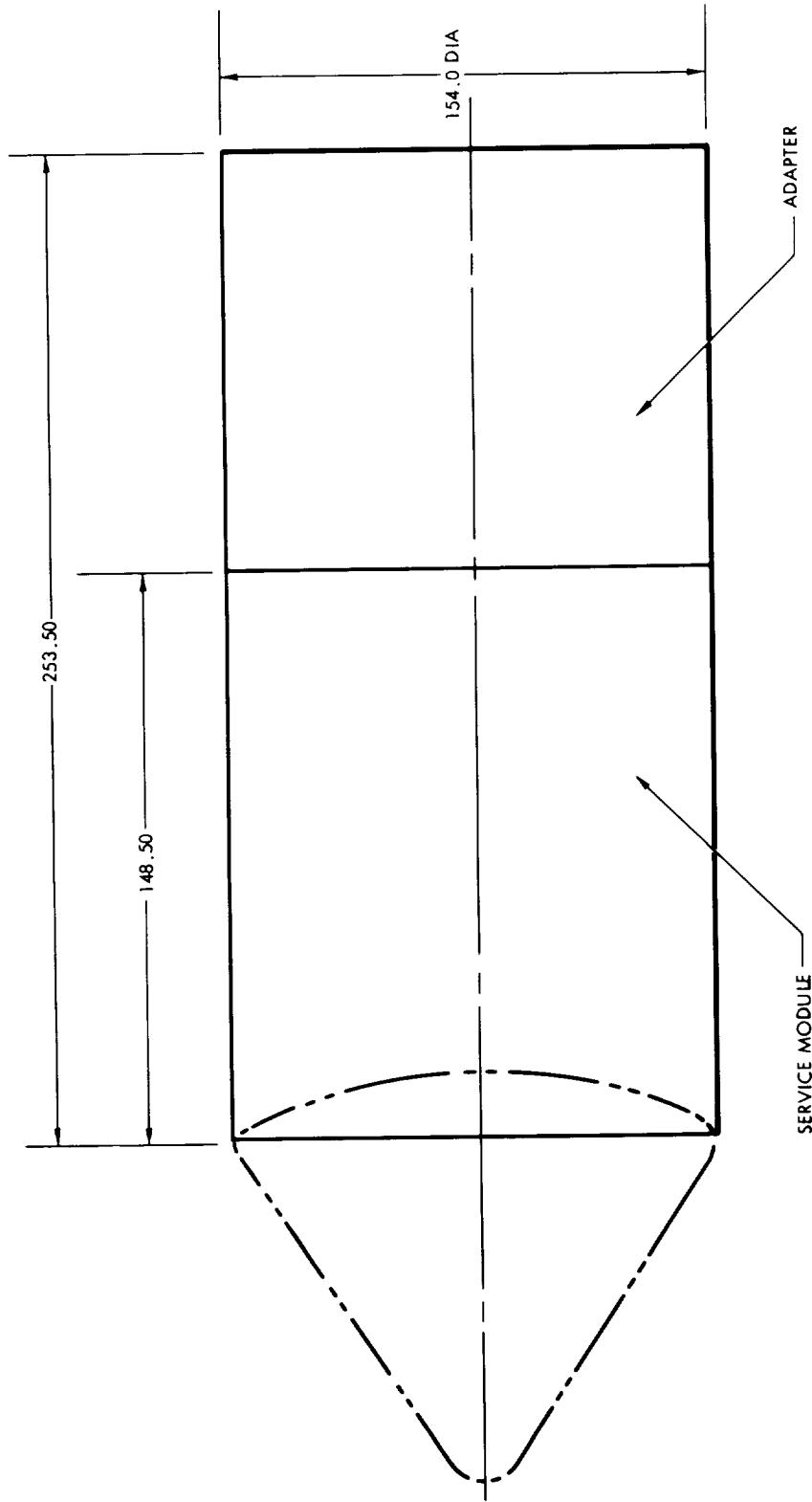
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

SERVICE MODULE S<sub>3</sub>

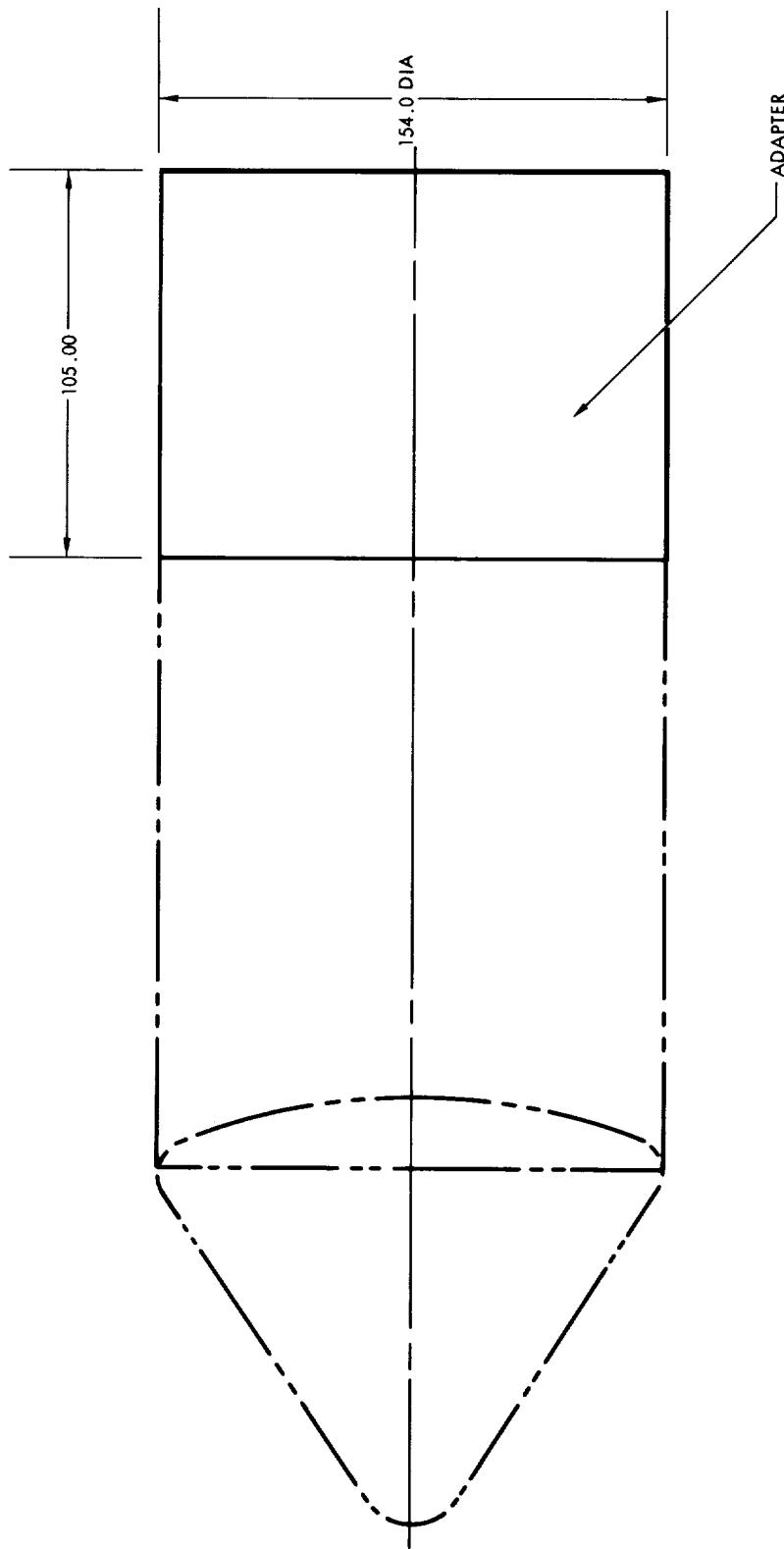
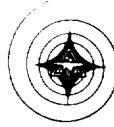
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

SERVICE MODULE S<sub>4</sub>

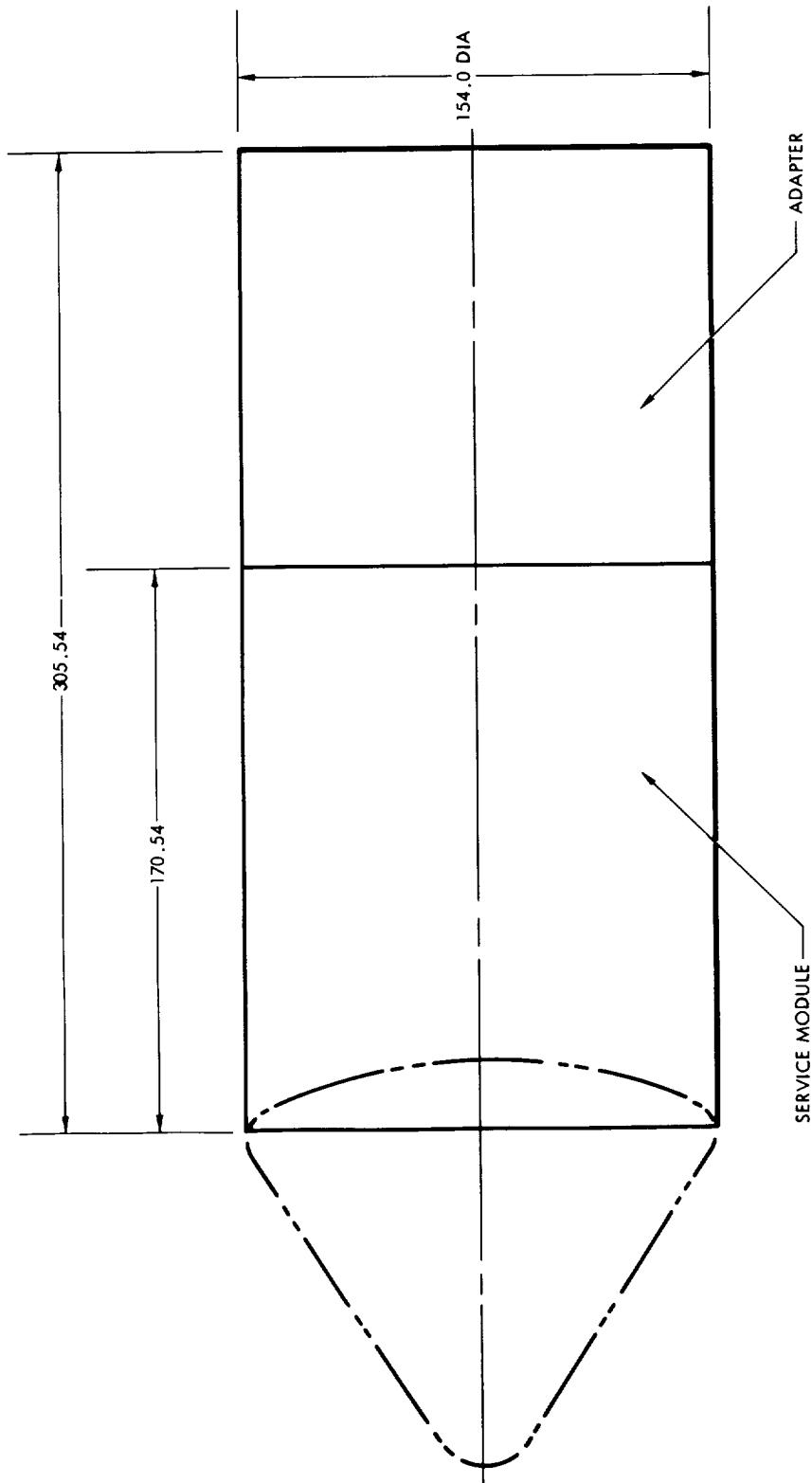
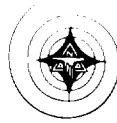
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

SERVICE MODULE S<sub>5</sub>

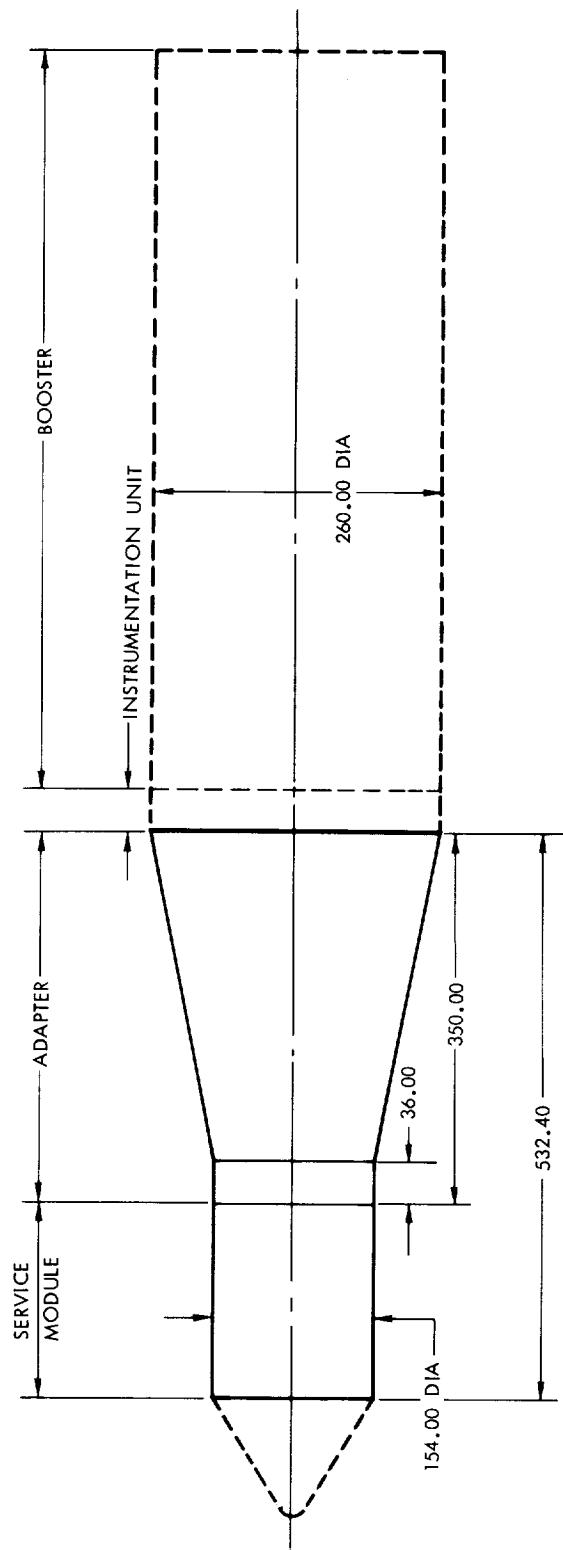
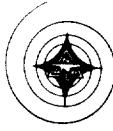
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FULL-SCALE DIMENSIONS IN INCHES

SERVICE MODULE S<sub>6</sub>

DRAWING NOT TO SCALE



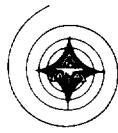
FULL-SCALE DIMENSIONS IN INCHES

SERVICE MODULE S7

DRAWING NOT TO SCALE

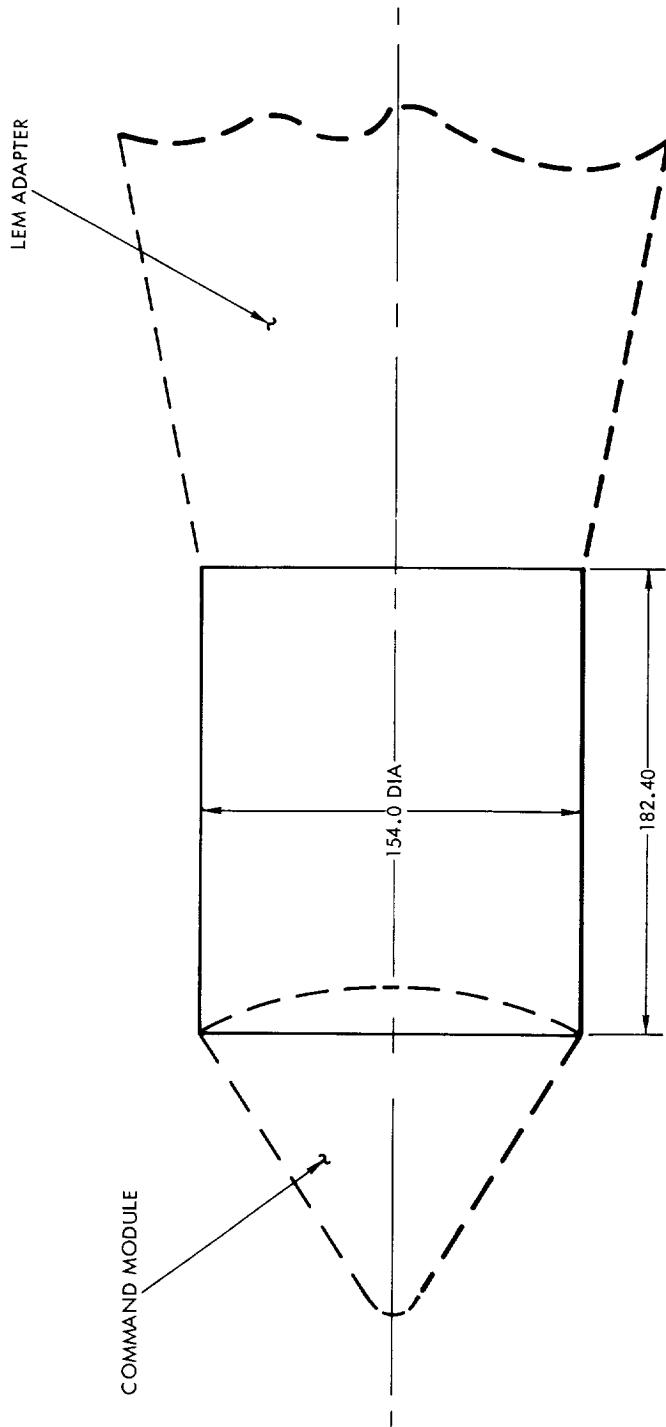
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SPACE and INFORMATION SYSTEMS DIVISION



Configuration S<sub>8</sub> has not been assigned.

SERVICE MODULE S<sub>8</sub>



DRAWING NOT TO SCALE

SERVICE MODULE S9

FULL-SCALE DIMENSIONS IN INCHES



## Apollo Wind Tunnel Model Nomenclature

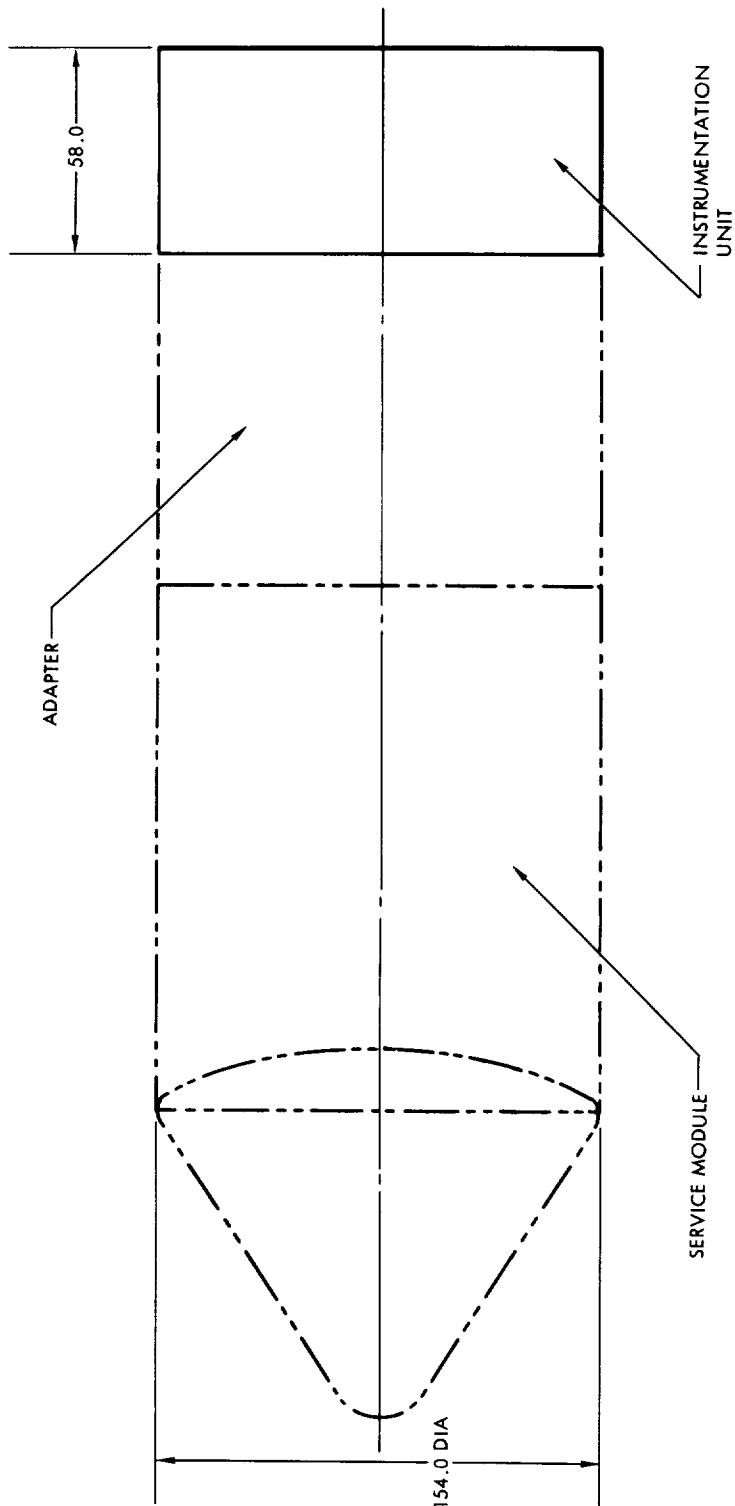
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
I	Instrumentation unit - Instrumentation unit only; cylindrical. Diameter = 154.0 in.; total length = 58.0 in.	R. B. D. H.	PSTL-1	7121-01173	TWT-77	SID 62-745 SID 62-929 SID 62-1151
E. F.		E. F.	PSTL-1	7121-01173	Ames 102 (14 by 14)	SID 62-799 SID 63-1480
R. B. G. H.		R. B. G. H.	PSTL-1	7121-01173	Ames 111 (8by7) 86(11by11)	SID 62-799 SID 62-1353 -1 and -2 SID 63-1480
R. B.		R. B.	PSTL-1	7121-01173	Ames 106(9by7)	SID 62-799 SID 62-809 -1 and -2 SID 63-1480
W. B. D. E.		W. B. D. E.	HL-1	7121-01261-2	AEDC Tunnel C 304244-500	SID 62-1214 SID 63-688
W. B. D. E.		W. B. D. E.	HL-1B	7121-01261-2	AEDC Tunnel C 304244-500	SID 62-1214 SID 63-688
G. U. W. B.		G. U. W. B.	HL-1	7121-01261-2	LUPWT- REY 451	SID 62-1011 SID 63-683



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
I (Cont)	G. U. W. B.	G. U.	HL-1B	7121-01261-2	LUPWT- REY 451	SID 62-1011 SID 63-683
		G. U.	HL-1B	7121-01261-2	AEDC Tunnel C	SID IOL 223-140-63 -023
I <sub>2</sub>	Length = 58.0 in.; cylindrical. Diameter = 154.0 in. Horizon sensor attached. The horizon sensor consists of a spherical dome situated on a cylinder of 25.0 in. diameter. The horizon sensor is at a 77.0-in. radius. Its centerline is 6.00 in. off center to the right. Height of cylinder = 7.00 in. Height of dome = 5.00 in.	J. W.	FSL-1	LH-100-4 and -23 7121-01136-4 and -23	Ames	SID 62-805 87(11by11) 105(9by7) 110(8by7)
B. C.		B. C.	FSL-1	LH-100-4 and -23 7121-01136-4 and -23	NACAL- 104	SID 62-669 SID 62-1436
D. C.		D. C.	FSL-1	LH-100-4 and -23 7121-01136-4 and -23	TWT-84	SID 62-670 SID 63-35
M. C. E. P.		M. C. E. P.	SD-1	7121-01211	LTDT	SID 62-841 48(16by16) SID 63-33



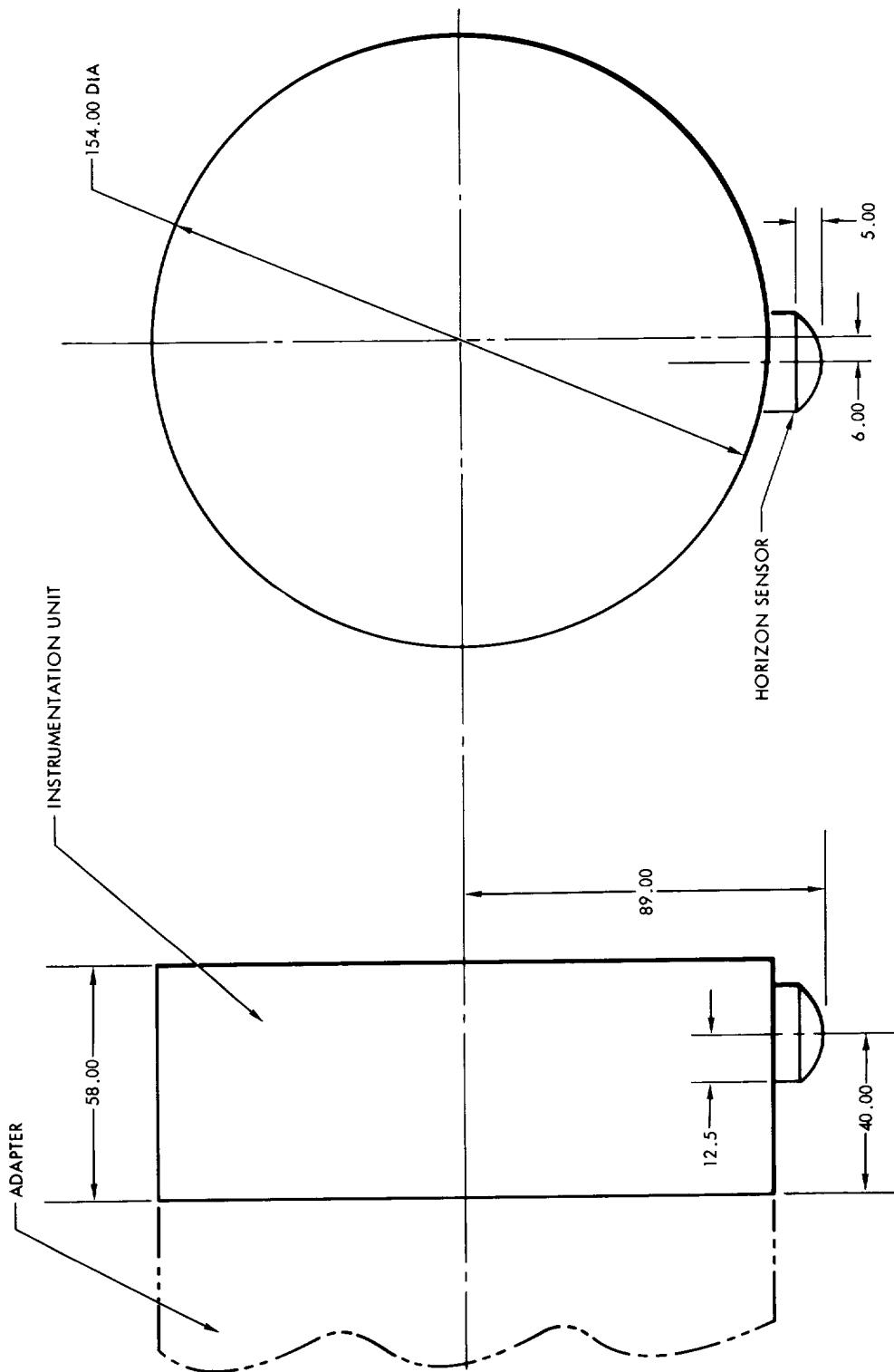
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
I <sub>2</sub> (Cont)	B. C. FSL-1	LH-100-4 and -23 7121-01136-4 and -23	AEDC Tunnel A 304244- 300	SID 62-806		
I <sub>3</sub>	J. S. P. B. Length = 36.00 in.; cylindrical; diameter = 260.00 in.	PSTL-2 7121-01191-2	Ames 37(9 by 7) 37(11 by 11)	SID 63-1027		
	D. E. HL-1C					



FULL-SCALE DIMENSIONS IN INCHES

INSTRUMENTATION UNIT (II)

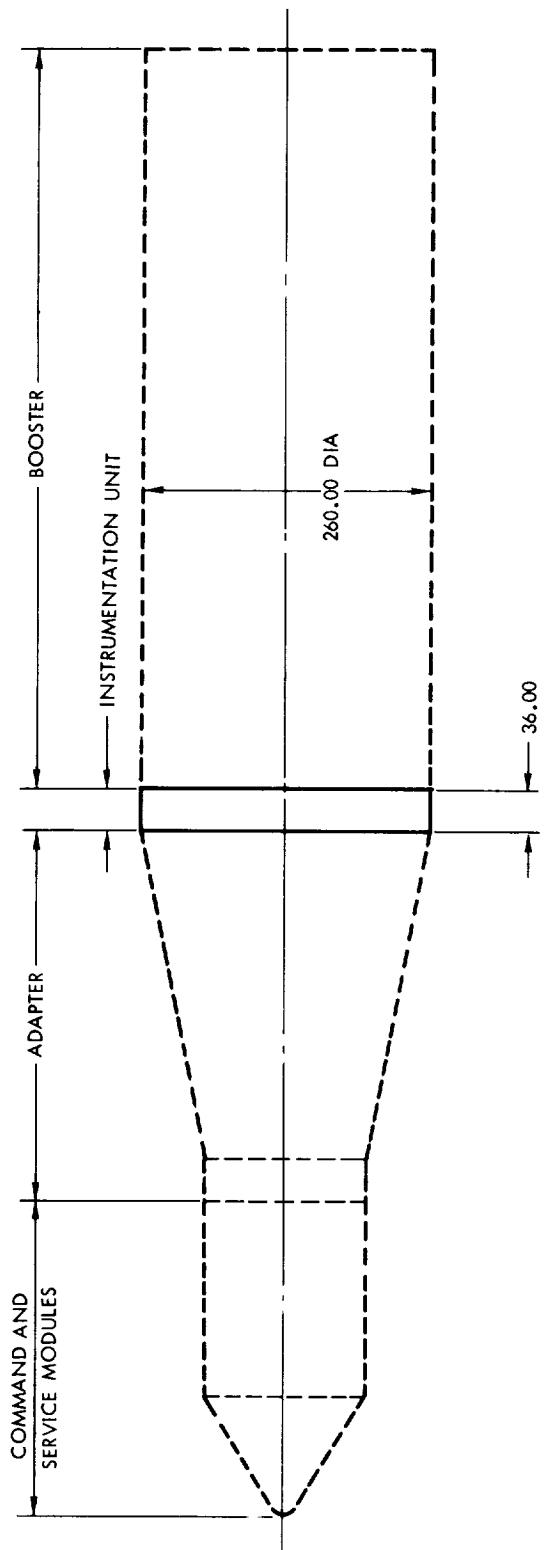
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

INSTRUMENTATION UNIT I-2

FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

INSTRUMENTATION UNIT I<sub>3</sub>

DRAWING NOT TO SCALE



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
B	Booster - C-1 launch vehicle configuration except aft section of S-I stage is removed. Retro-rockets, T.V. cameras and I-beams on S-I stage simulated. Ullage rockets and cooling ducts on S-IV stage simulated. Only one retro-rocket on S-IV stage upper centerline simulated. Total length = 1272.27 in.	R. B. D.H.	PSTL-1	7121-01173-2, -4, -6, -12, -13, -21 thru 27, and -29	TWT-77	SID 62-745 SID 62-929 SID 62-1151
		E.F.	PSTL-1	Same as above	Ames 102 (14 by 14)	SID 62-799 SID 63-1480
		R.B. G.H.	PSTL-1	Same as above	Ames 111 (8 by 7) 86 (11 by 11)	SID 62-799 SID 62-1353 -1 and -2 SID 63-1480
		R.B.	PSTL-1	Same as above	Ames 106 (9 by 7)	SID 62-799 SID 62-809 -1 and -2 SID 63-1480
B <sub>2</sub>	C-1 launch vehicle configuration. - Total length = 1460.59 in. Retro-rockets, T. V. cameras, I-beams, antenna plates, antenna telemetry, and large and small fins on S-I stage simulated. Ullage rockets, cooling ducts, I-beam fins, and two retro-rockets (upper and lower center-lines) on S-IV stage simulated.	M.C. E.P.	SD-1	7121-01205-3 7121-01211 7121-01220-2 and -3 7121-01244-2 through 9, -11, -12, and -14	LTT 48 (16 by 16)	SID 62-841 SID 63-33



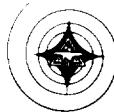
## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
B <sub>3</sub>	C-1 launch vehicle configuration. - Total length = 1460.60 in. Retro-rockets, T. V. cameras, I-beams, antenna plates, antenna telemetry, large and small fins, chill-down ducts, and exhaust ducts on S-I stage simulated. Ullage rockets, cooling ducts, and two retro-rockets (upper and lower centerlines) on S-IV stage simulated.	J. W.	FSL-1	LH-100 7121-01136	Ames 87 (11 by 11) 105 (9 by 7) 110 (8 by 7)	SID 62-805 SID 62-1143
		B. C.	FSL-1	LH-100 7121-01136	AEDC Tunnel A 304244-300	SID 62-806 SID 62-1144
		D. C.	FSL-1	LH-100 7121-01136	AEDC Tunnel B 304244-400	SID 62-806 SID 62-1144
		B. C.	FSL-1	LH-100 7121-01136	TWT-84 NACAL-104	SID 62-670 SID 63-35 SID 62-669 SID 62-1436
B <sub>4</sub>	S-IV stage and adapter only. Total length = 497.29 in. Maximum diameter = 220.00 in. Minimum diameter = 154.00 in. Maximum and minimum diameters are joined by straight fairings tangent to an arc of radius = 110.00 in. and whose center is 155.20 in. aft of the minimum diameter.	B. C.	FSL-1	LH-100 7121-01136	AEDC Tunnel B 304244-400	SID 62-806 SID 62-1144



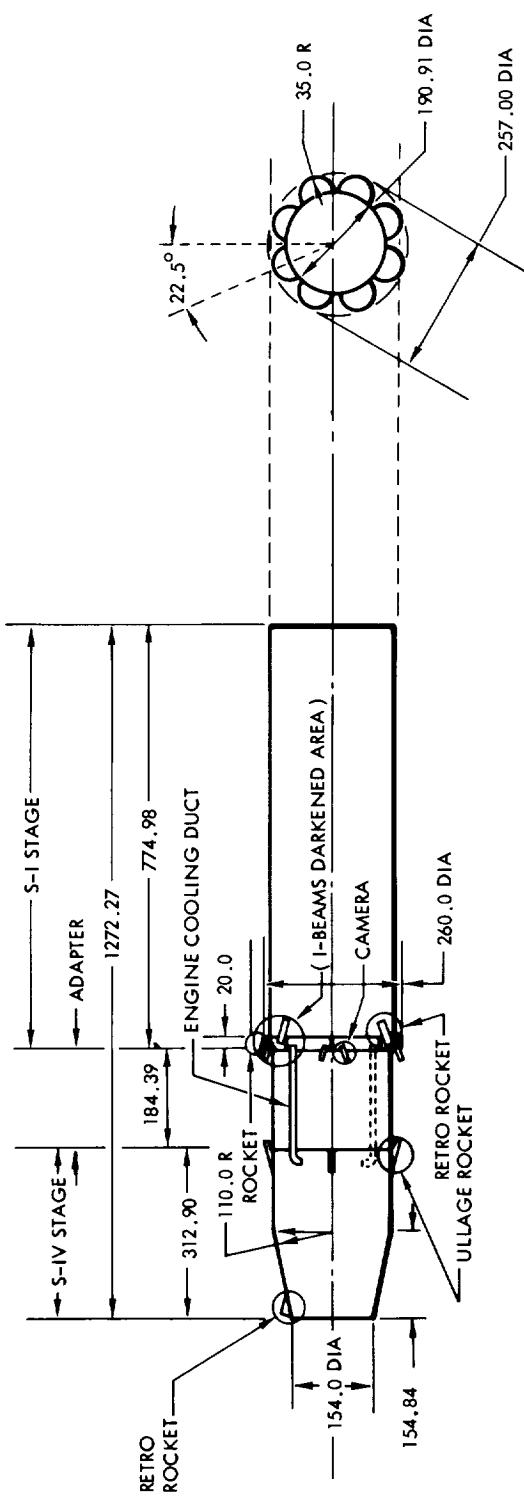
## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
B <sub>5</sub>	C-1 launch vehicle configuration except aft section of S-I stage is removed. Total length = 1272.27 in. (Same as B except consists of cylinder and bulges only.)	E. F.	PSTL-1	7121-011173-2, -4, -6, -12, and -13	Ames 102 (14 by 14)	SID 62-799 Not tested
B <sub>6</sub>	Forward section of S-IV stage only. Total length = 250.00 in. Forward portion is cone-like in shape having a forward diameter = 154.0 in. and an aft diameter = 220.0 in. Vertex semiangle = 13 deg. 15 min. Aft portion is cylindrical and has a 220.0 in. diameter.	W. B. D. E.	HL-1	7121-01261-15	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688
B <sub>7</sub>	C-1 launch vehicle configuration except aft section is removed. Total length = 1272.27 in. Skirt fairing = 20 deg. Four retro-rockets simulated.	E. F.	PSTL-1	None	Ames 102 (14 by 14)	None SID 63-1480



## Apollo Wind Tunnel Model Nomenclature

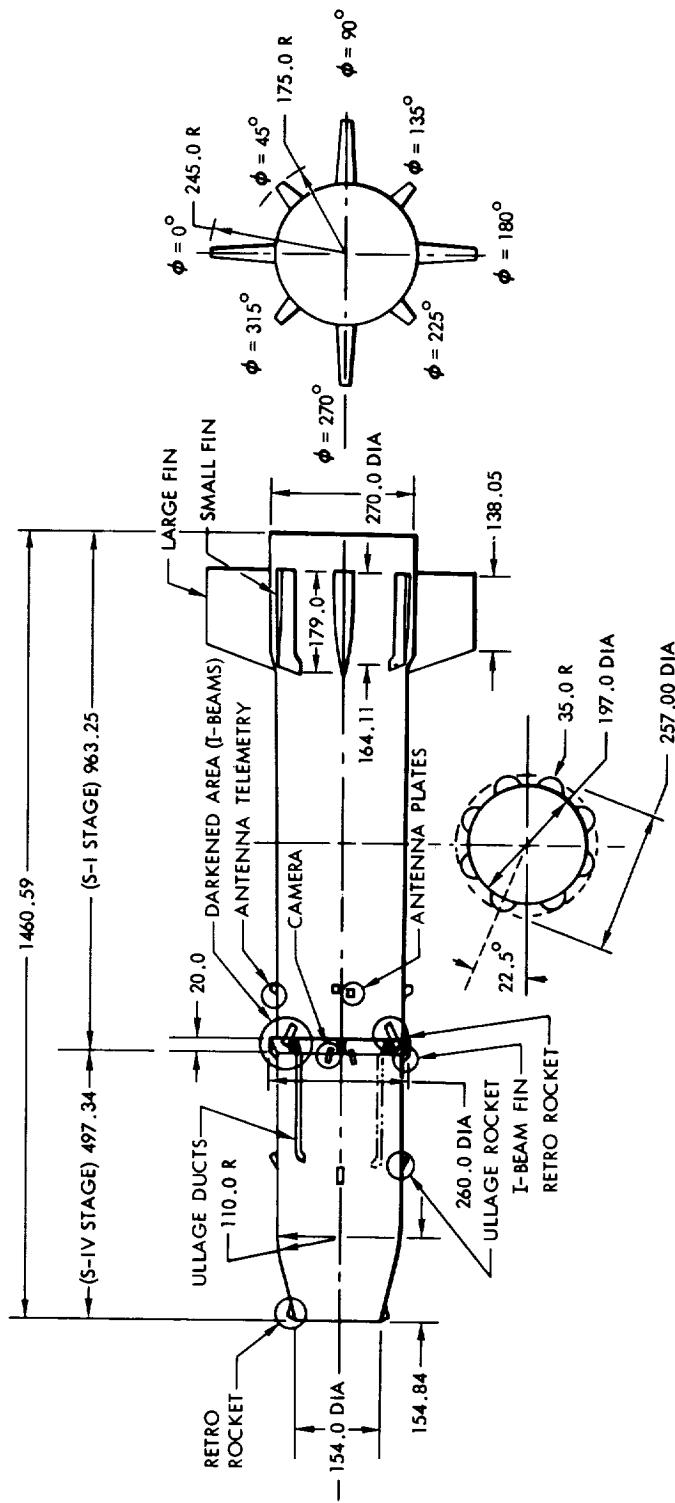
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
B8	<p>Forward section of S-IV stage only. Total length = 250.0 in. Forward portion is cone-like in shape having a forward diameter = 154.0 in. and an aft diameter = 260.0 in. Vertex semiangle = 24 deg 52 min. Aft portion is cylindrical and has a 260.0 in. diameter.</p> <p>(Same as B6 except vertex semi-angle = 24 deg 52 min, and maximum diameter = 260.0 in.)</p>	D. E. W. B.	HL-1B	7121-01261-15 7121-01264-2	AEDC Tunnel C 304244-500	SID 62-1214 SID 63-688
B9	S-IVB stage only; cylindrical. Total length = 700.56 in.; diameter = 260 in.	J. S. P. B.	PSTL-2	7121-01192-2	Ames 37(9 by 7) 37(11 by 11)	SID 63-1027
		D. E.	HL-1C			



FULL-SCALE DIMENSIONS IN INCHES

BOOSTER (B)

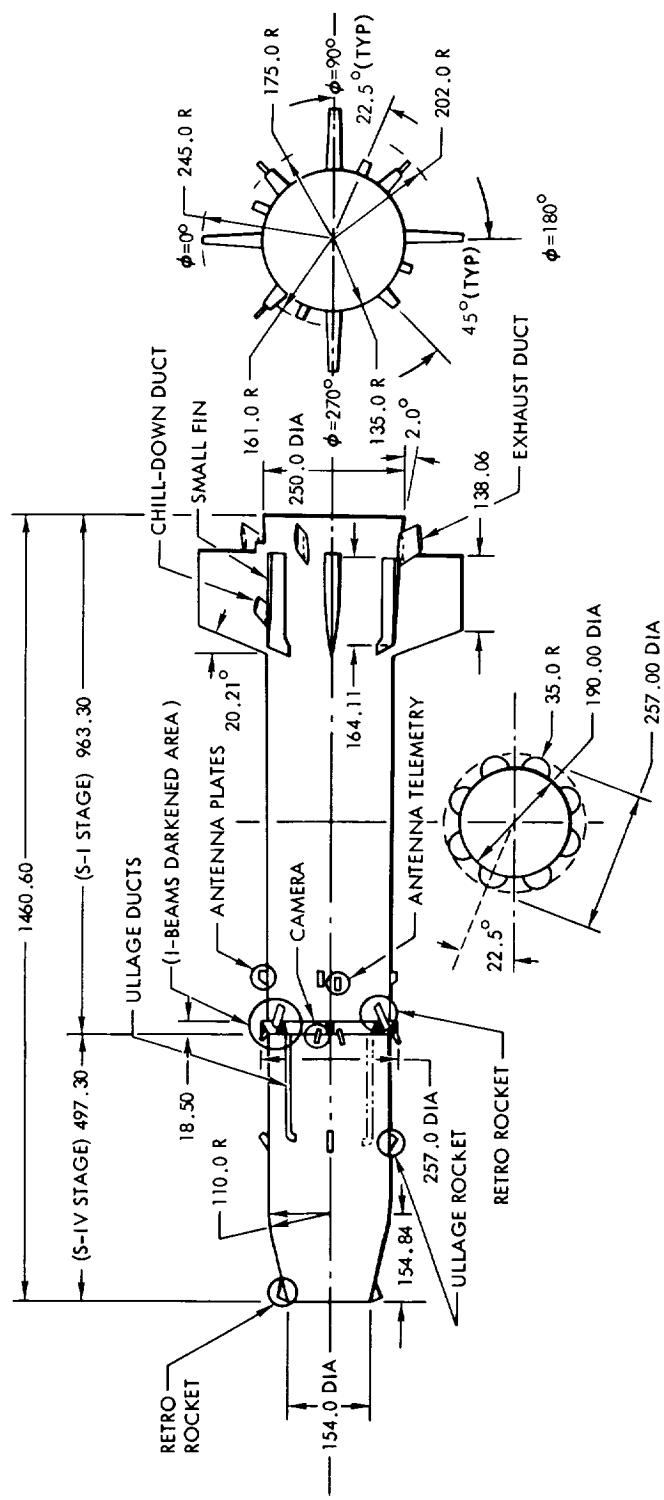
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

BOOSTER B<sub>2</sub>

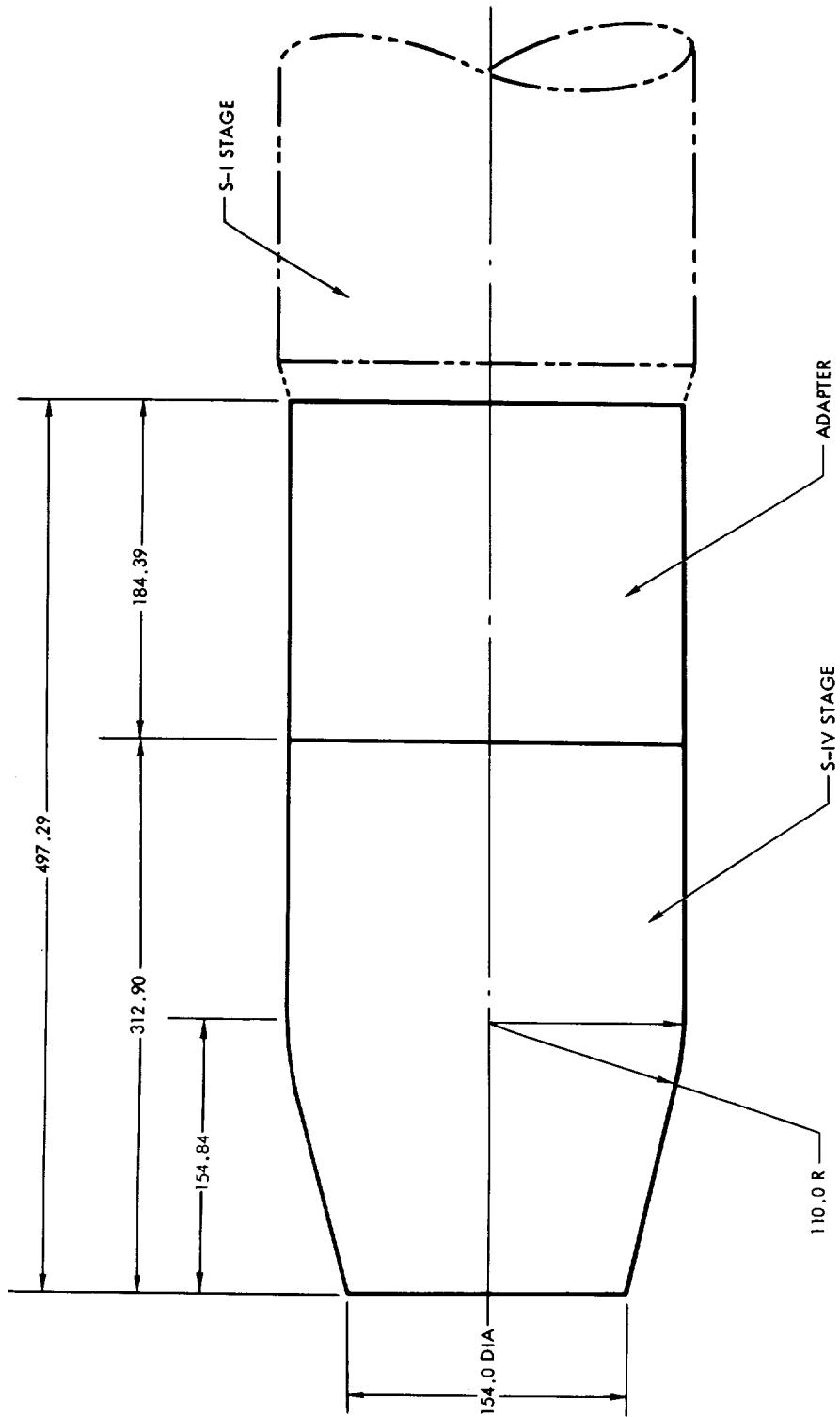
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

BOOSTER B<sub>3</sub>

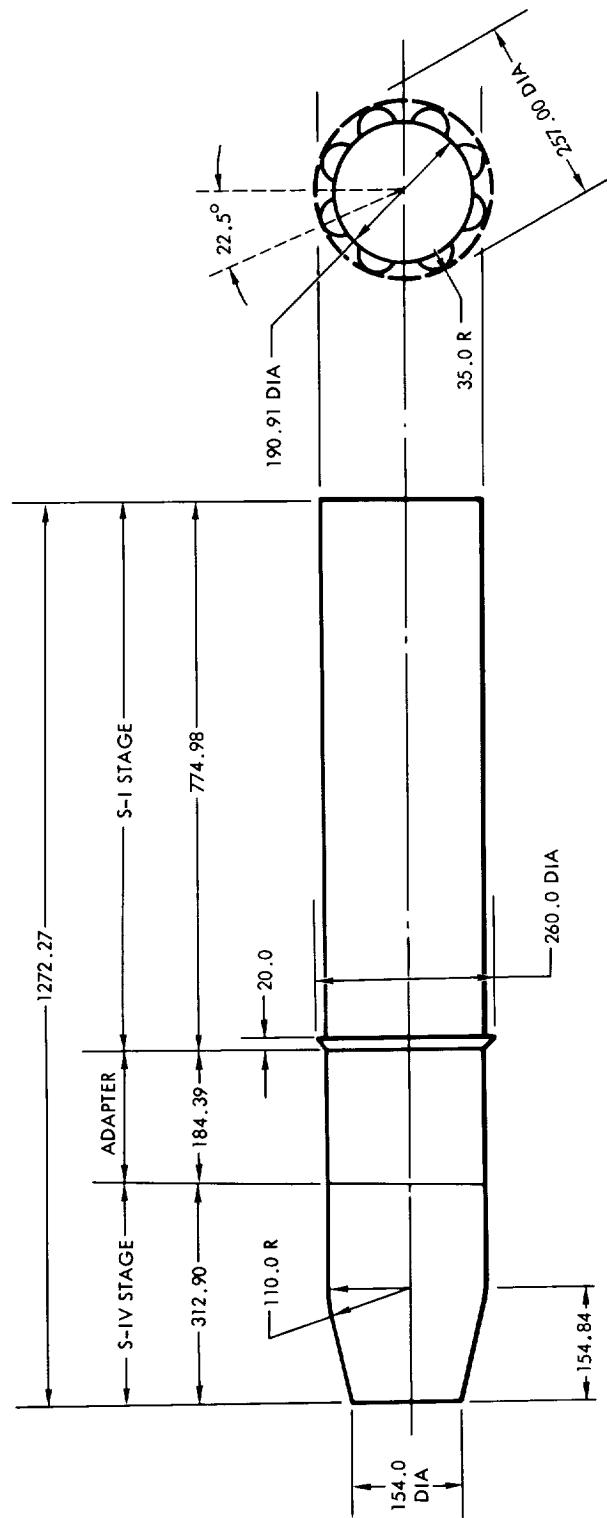
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

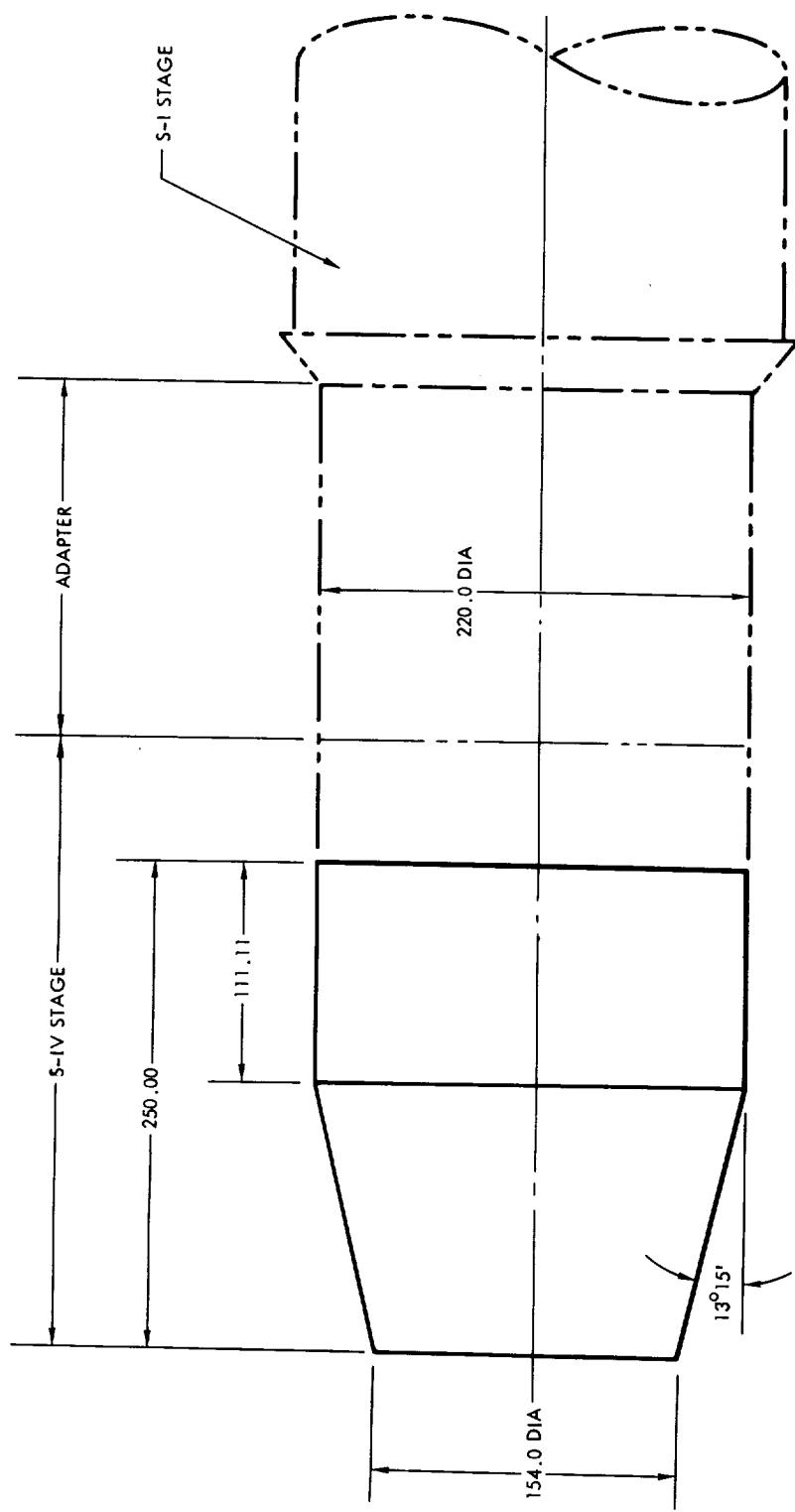
BOOSTER B<sub>4</sub>

FULL-SCALE DIMENSIONS IN INCHES

BOOSTER B<sub>5</sub>

FULL-SCALE DIMENSIONS IN INCHES

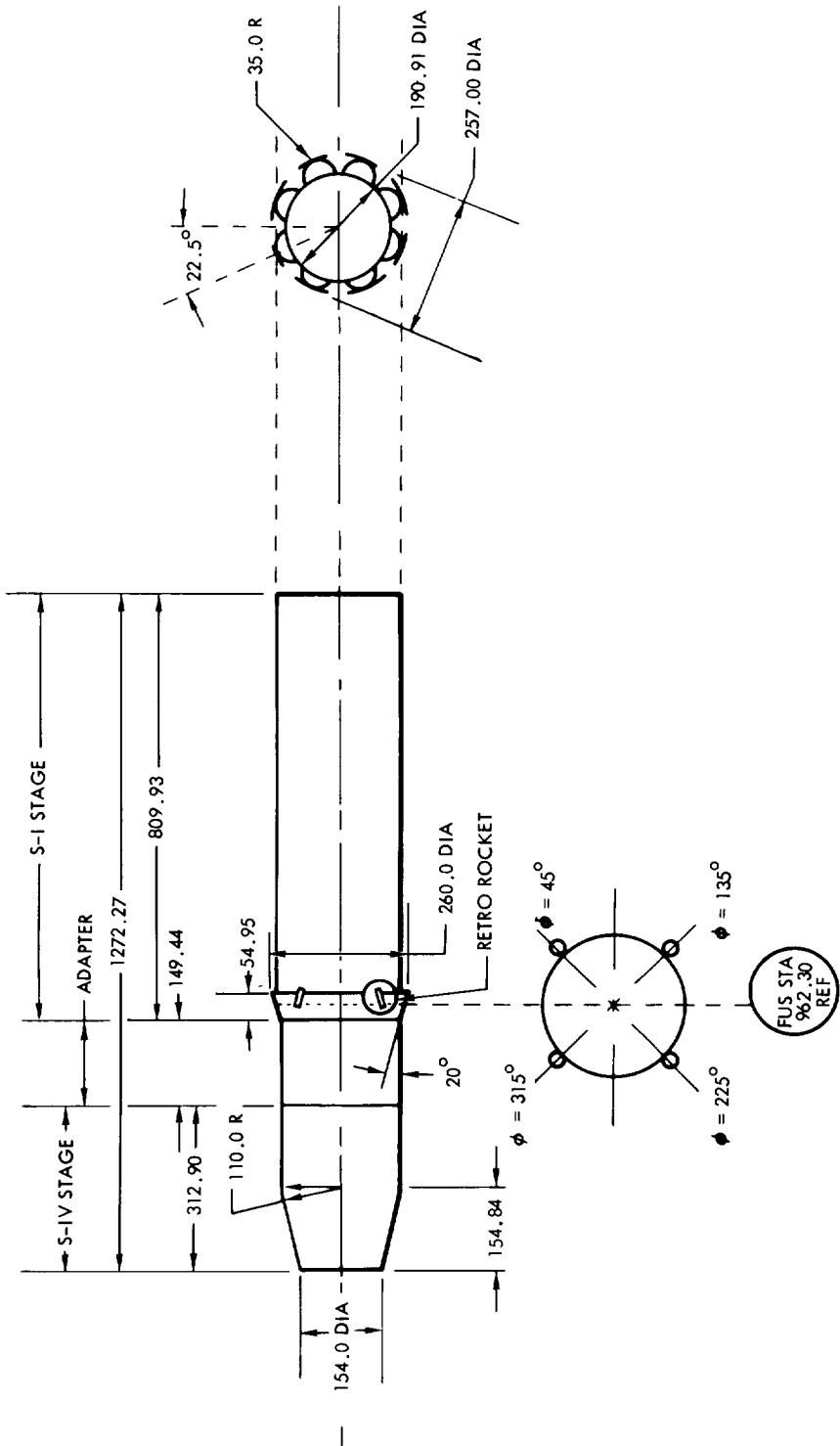
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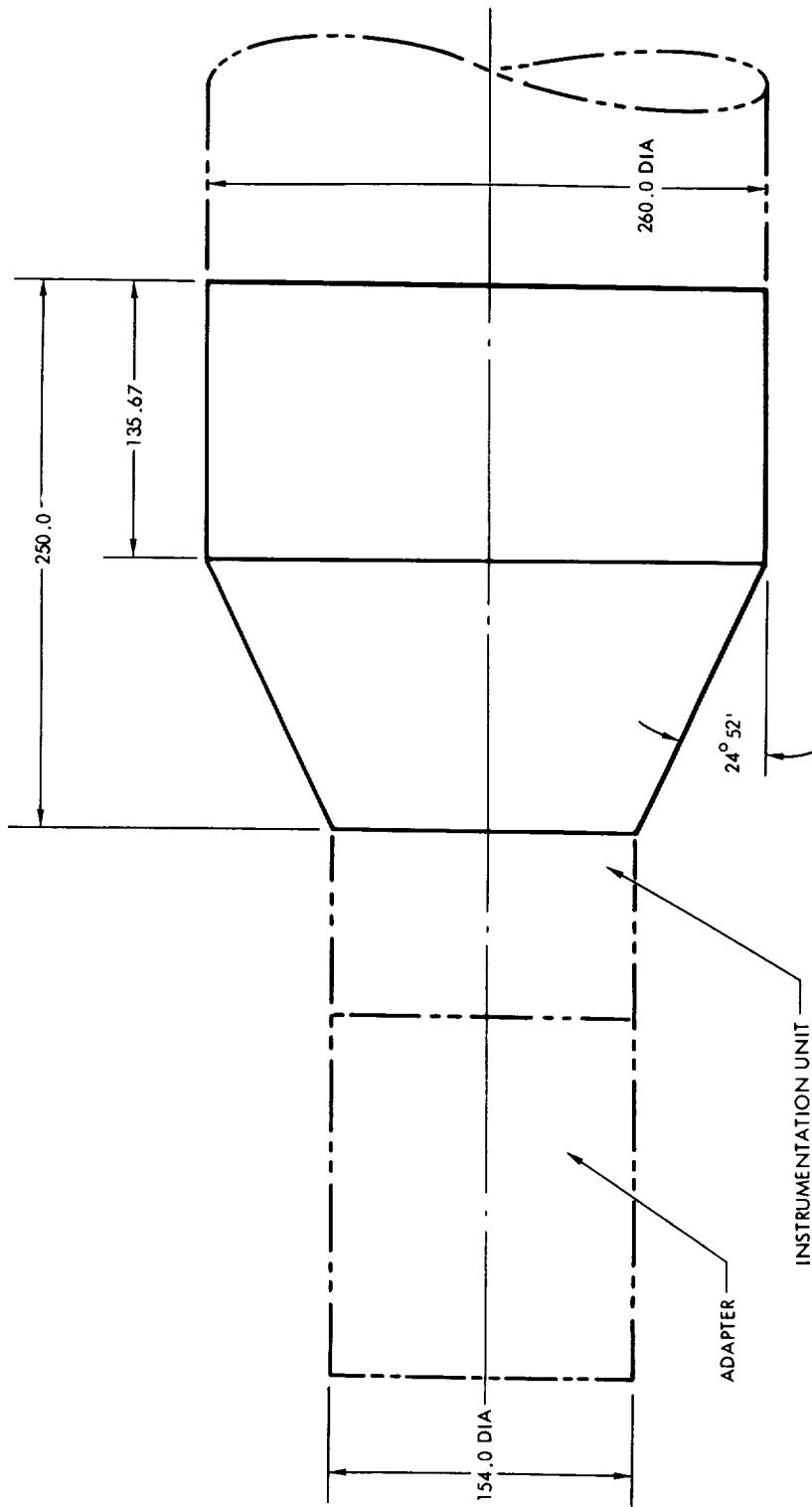
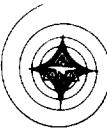
FULL-SCALE DIMENSIONS IN INCHES

BOOSTER B<sub>6</sub>

DRAWING NOT TO SCALE

BOOSTER B<sub>7</sub>

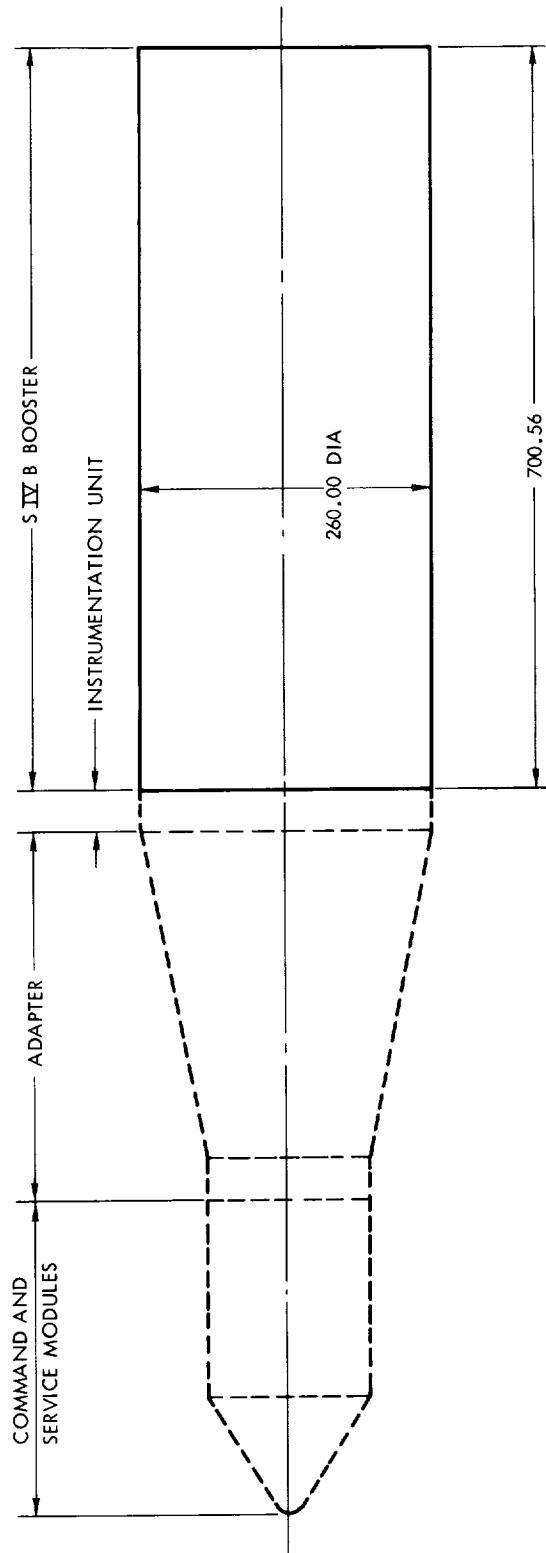
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

BOOSTER B<sub>8</sub>

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

BOOSTER B9

DRAWING NOT TO SCALE





Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
P	Four solid plumes simulating the escape motor rocket exhaust plumes from the nozzle exists to aft of the command module. Plume centerline straight, exhaust angle variable, plume nose paraboloid, nose radius = 6.00 in., aft section cylindrical, maximum diameter = 62.85 in. Total length = 362.50 in.	R. U.	FS-1	7121-01070-3	SAL-1208	None SID 62-1056
P2	Same as P except maximum diameter = 43.45 in.	R. U.	FS-1	7121-01070-4	SAL-1208	None SID 62-1056
P3	Same as P except maximum diameter = 31.00 in.; minimum diameter = 16.50 in.; nose radius = 4.50 in.	R. U.	FS-1	7121-01070-5	SAL-1208	None SID 62-1056
P4	Same as P except plume centerline curved, exhaust angle = 33 deg., plume curves so that aft section is at 21.5 deg. to command module centerline. Maximum diameter = 43.45 in.; nose radius = 6.25 in.; total length = 365.62 in.  (Bent plumes)	R. U.	FS-1	7121-01070-6	SAL-1208	None SID 62-1056



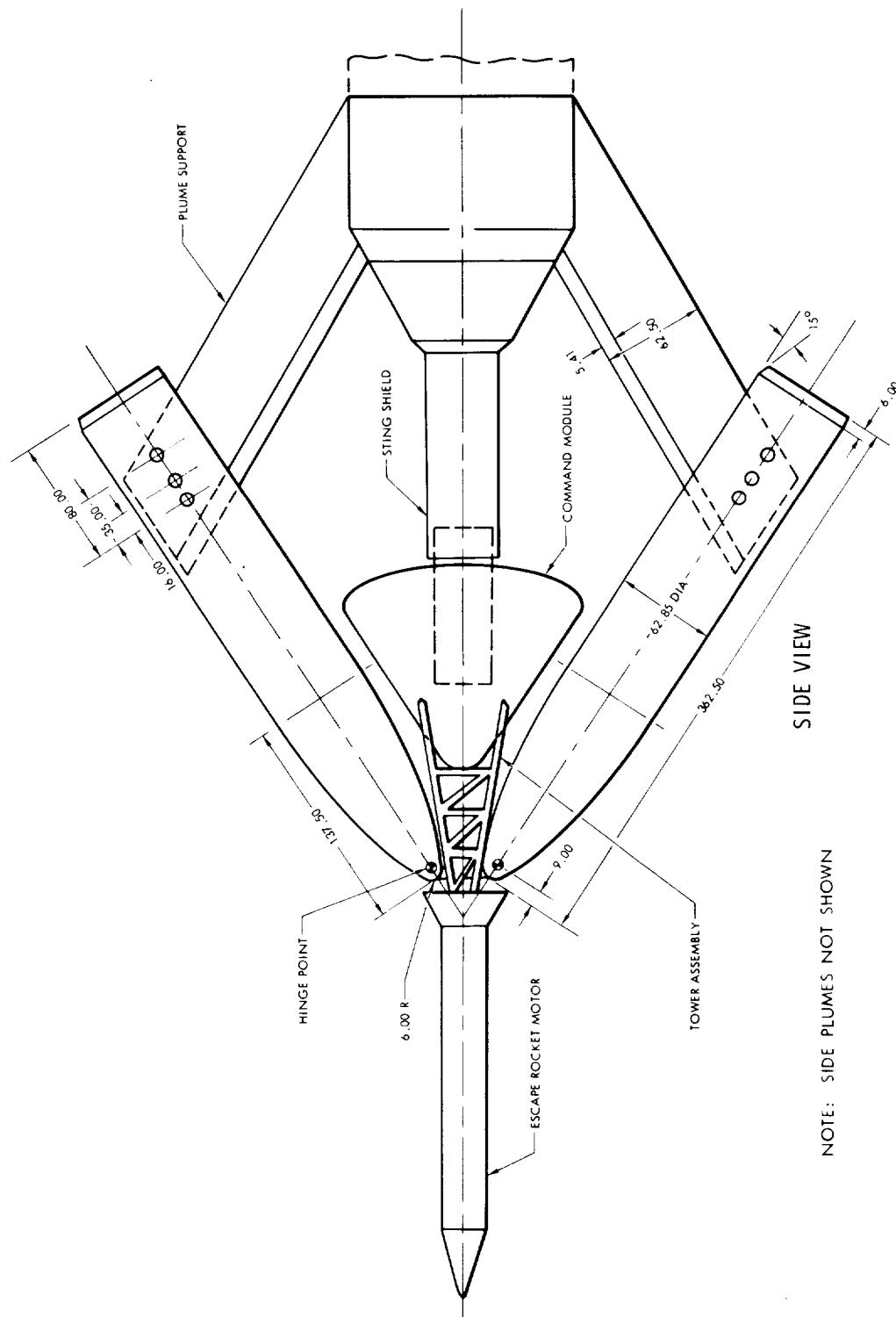
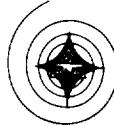
## Apollo Wind Tunnel Model Nomenclature

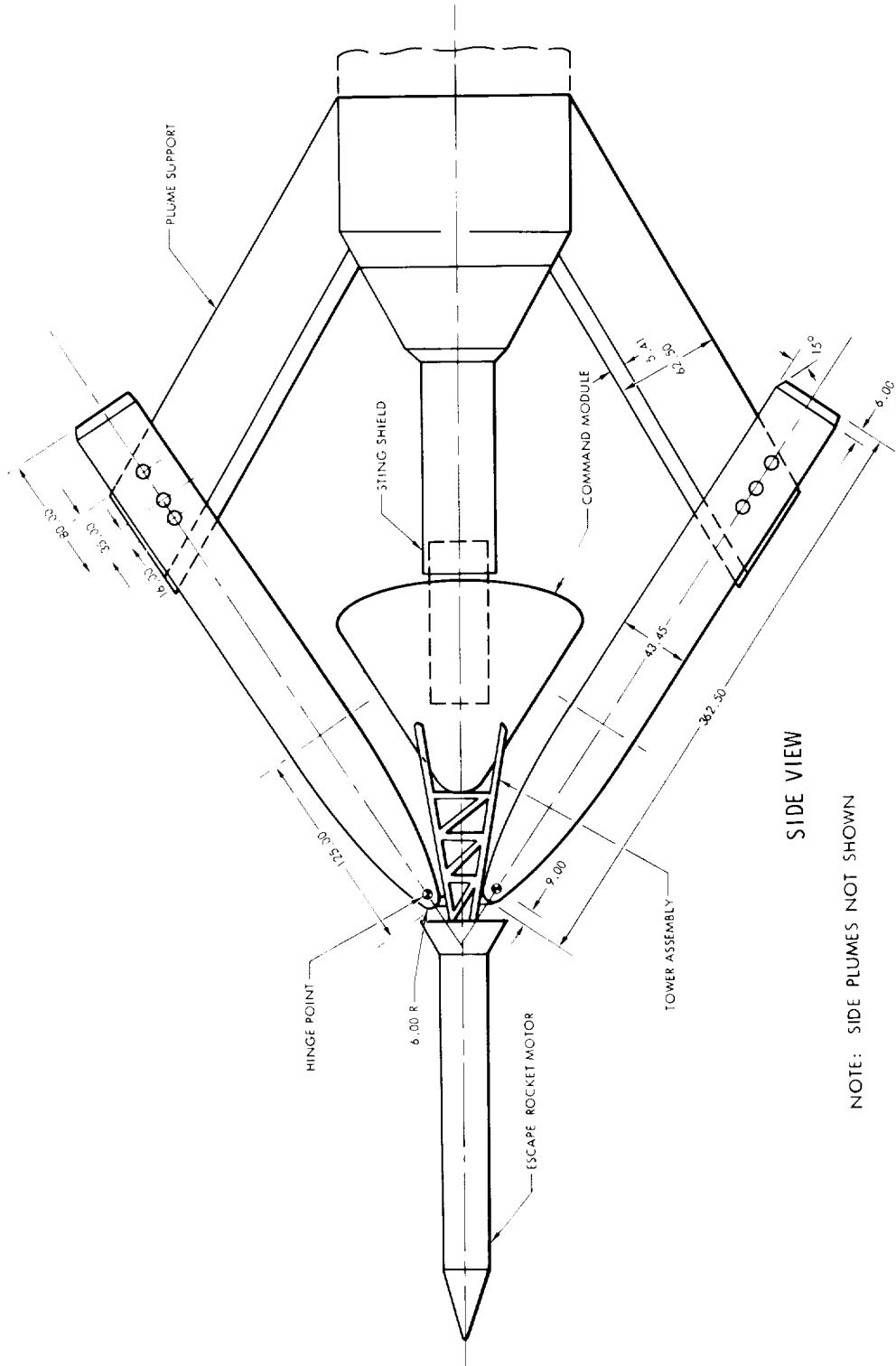
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
P <sub>5</sub>	Same as P except plume centerline curved, exhaust angle = 33 deg. Plume curves so that aft section is at 21.5 deg. to command module center line. Maximum diameter = 31.00 in.; minimum diameter = 16.50 in.; nose radius = 4.50 in.; total length = 365.58 in. (Bent plumes)	R. U.	FS-1	7121-01070-7	SAL-1208	None SID 62-1056
P <sub>6</sub>	Same as P <sub>2</sub> except only bottom plume is installed.	R. U.	FS-1	7121-01070-4	SAL-1208	None SID 62-1056
P <sub>7</sub>	Same as P <sub>2</sub> except only two side plumes installed.	R. U.	FS-1	7121-01070-4	SAL-1208	None SID 62-1056
P <sub>8</sub>	Same as P <sub>2</sub> except the plume on the bottom is bent. The bent plume is the same as P <sub>4</sub> .	R. U.	FS-1	7121-01070-4 & - 6	SAL-1208	None SID 62-1056
P <sub>9</sub>	Same as P <sub>2</sub> except only top and bottom plumes installed.	R. U.	FS-1	7121-01070-4	SAL-1208	None SID 62-1056



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
P <sub>10</sub>	Modified P <sub>2</sub>	R. U.	FS-1	None	SAL-1208	None SID 62-1056
P <sub>11</sub>	Same as P except only two side plumes installed.	R. U.	FS-1	7121-01070-3	SAL-1208	None SID 62-1056
P <sub>12</sub>	Same as P except only top and bottom plumes installed.	R. U.	FS-1	7121-01070-3	SAL-1208	None SID 62-1056

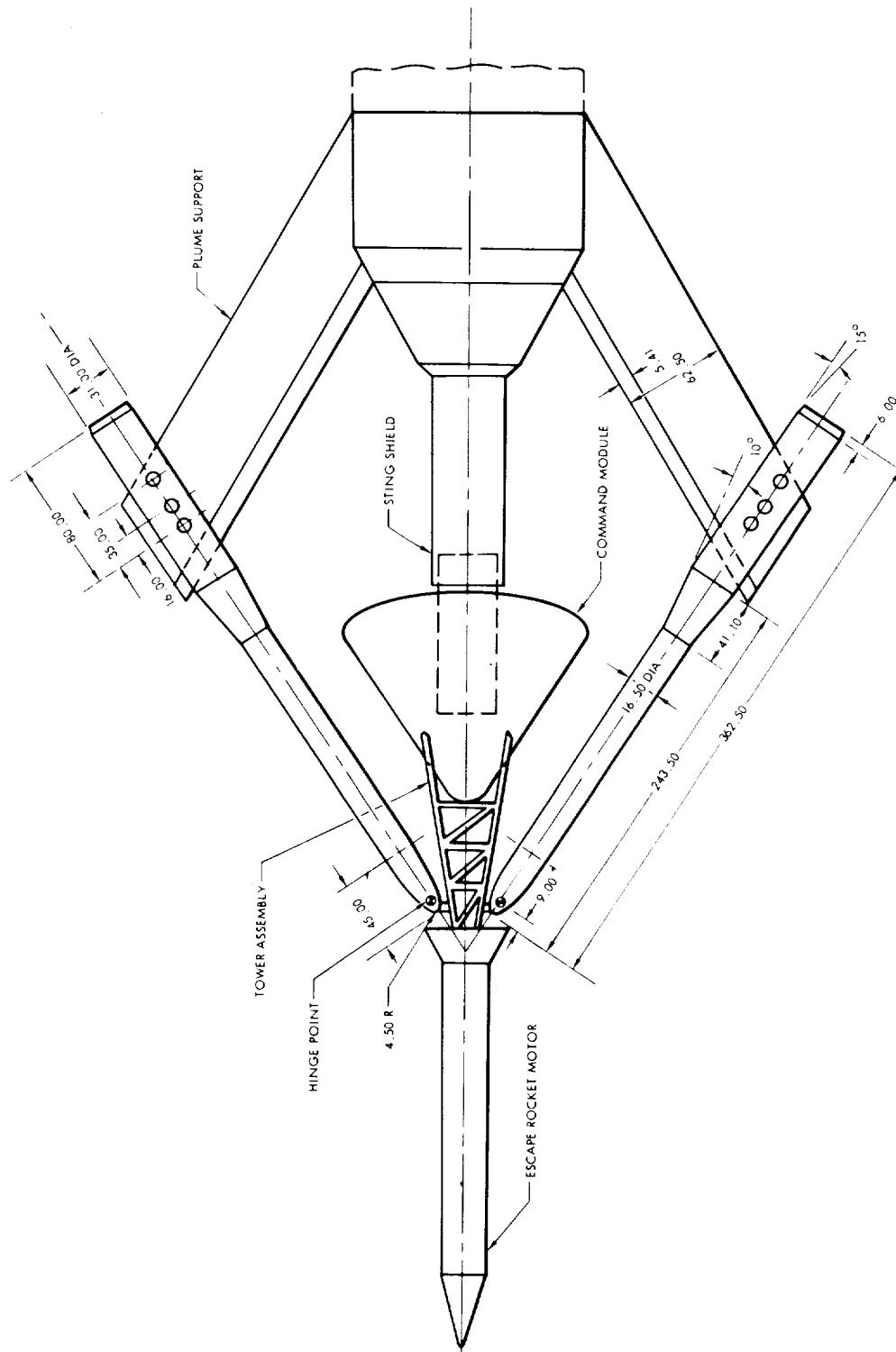




FULL-SCALE DIMENSIONS IN INCHES

PLUME P<sub>2</sub>

DRAWING NOT TO SCALE



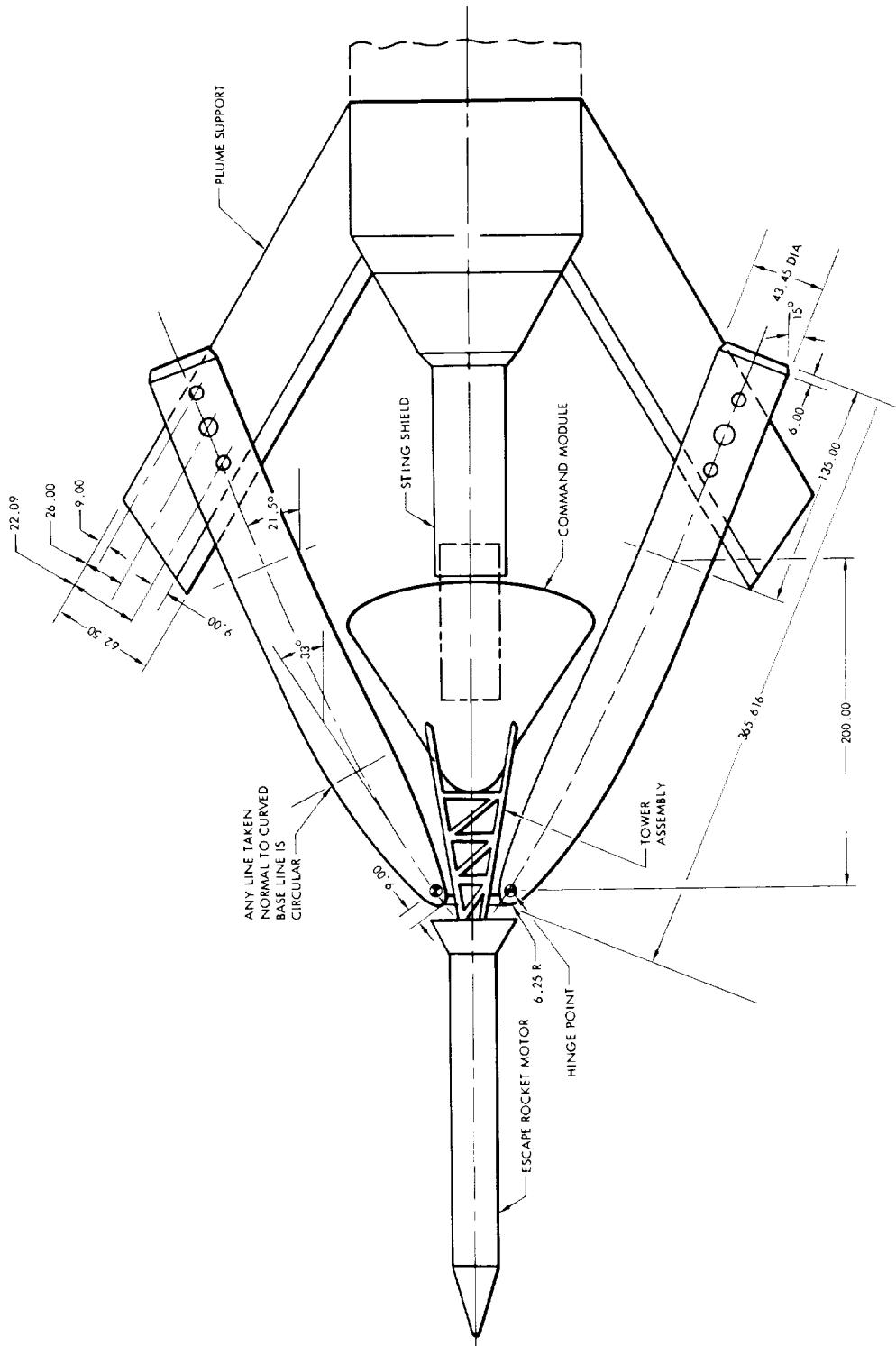
SIDE VIEW

NOTE: SIDE PLUMES NOT SHOWN

FULL-SCALE DIMENSIONS IN INCHES

PLUME P 3

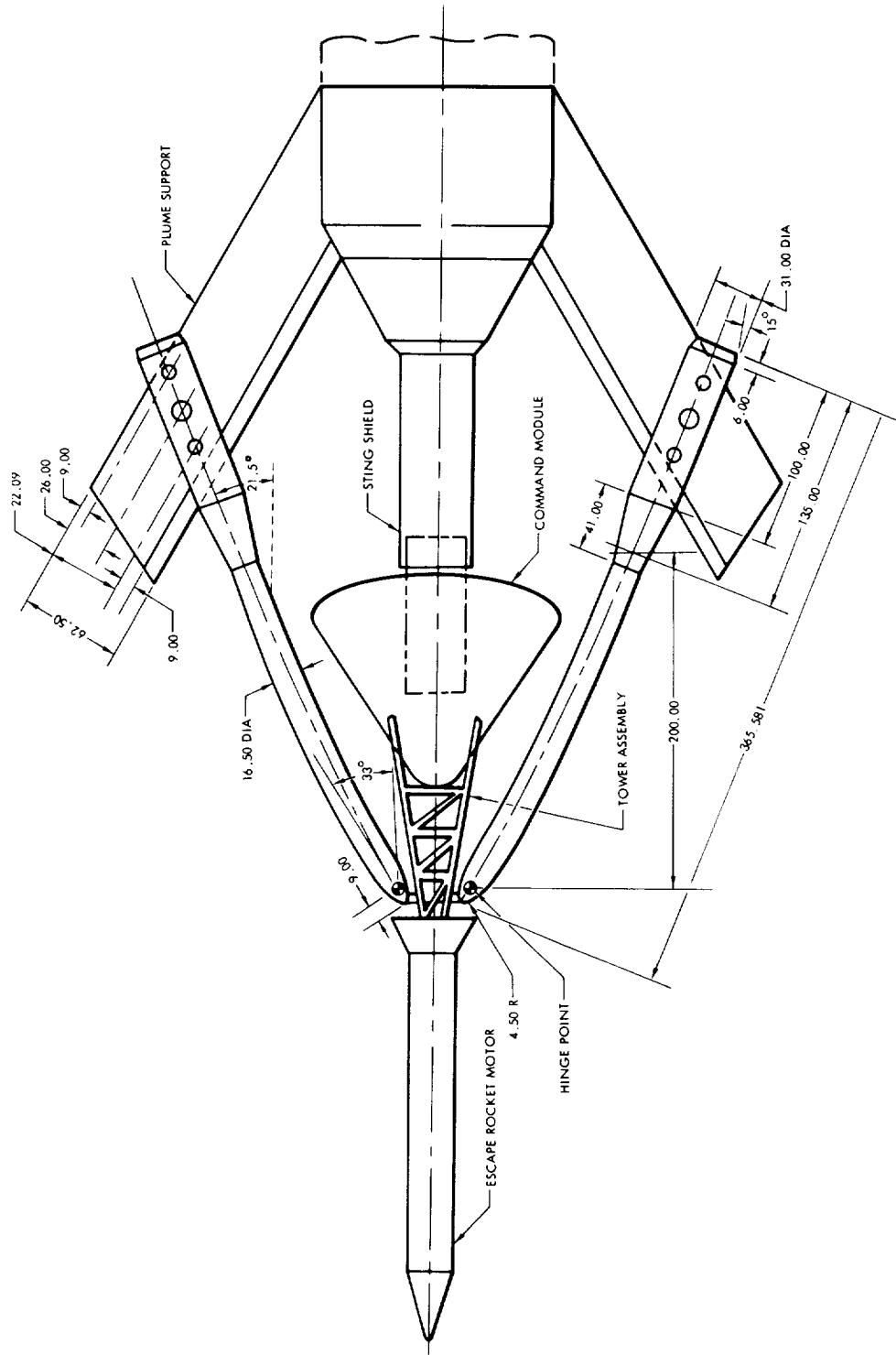
DRAWING NOT TO SCALE



NOTE: SIDE PLUMES NOT SHOWN

FULL-SCALE DIMENSIONS IN INCHES

PLUME P



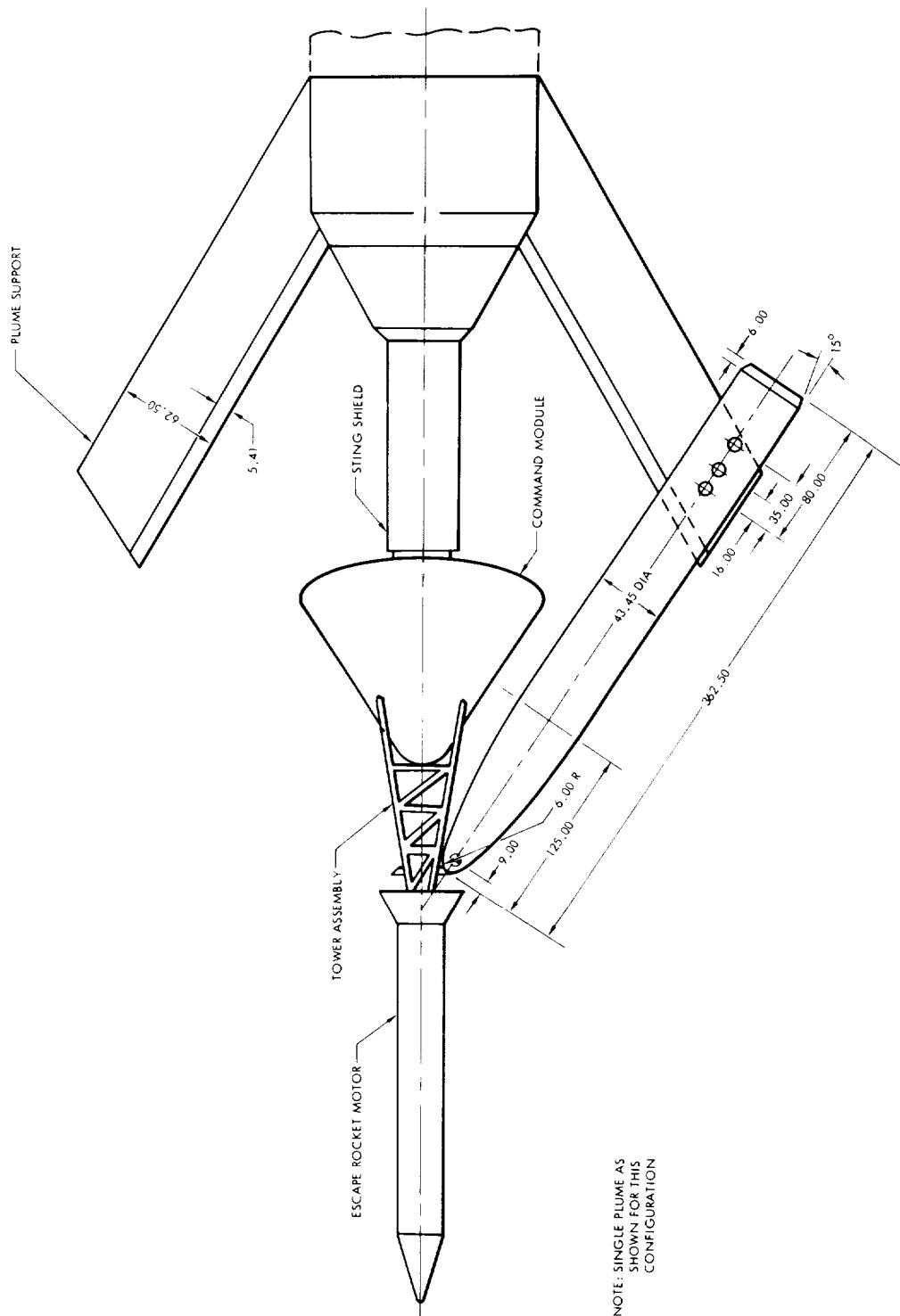
SIDE VIEW

NOTE: SIDE PLUMES NOT SHOWN

FULL-SCALE DIMENSIONS IN INCHES

PLUME P<sub>5</sub>

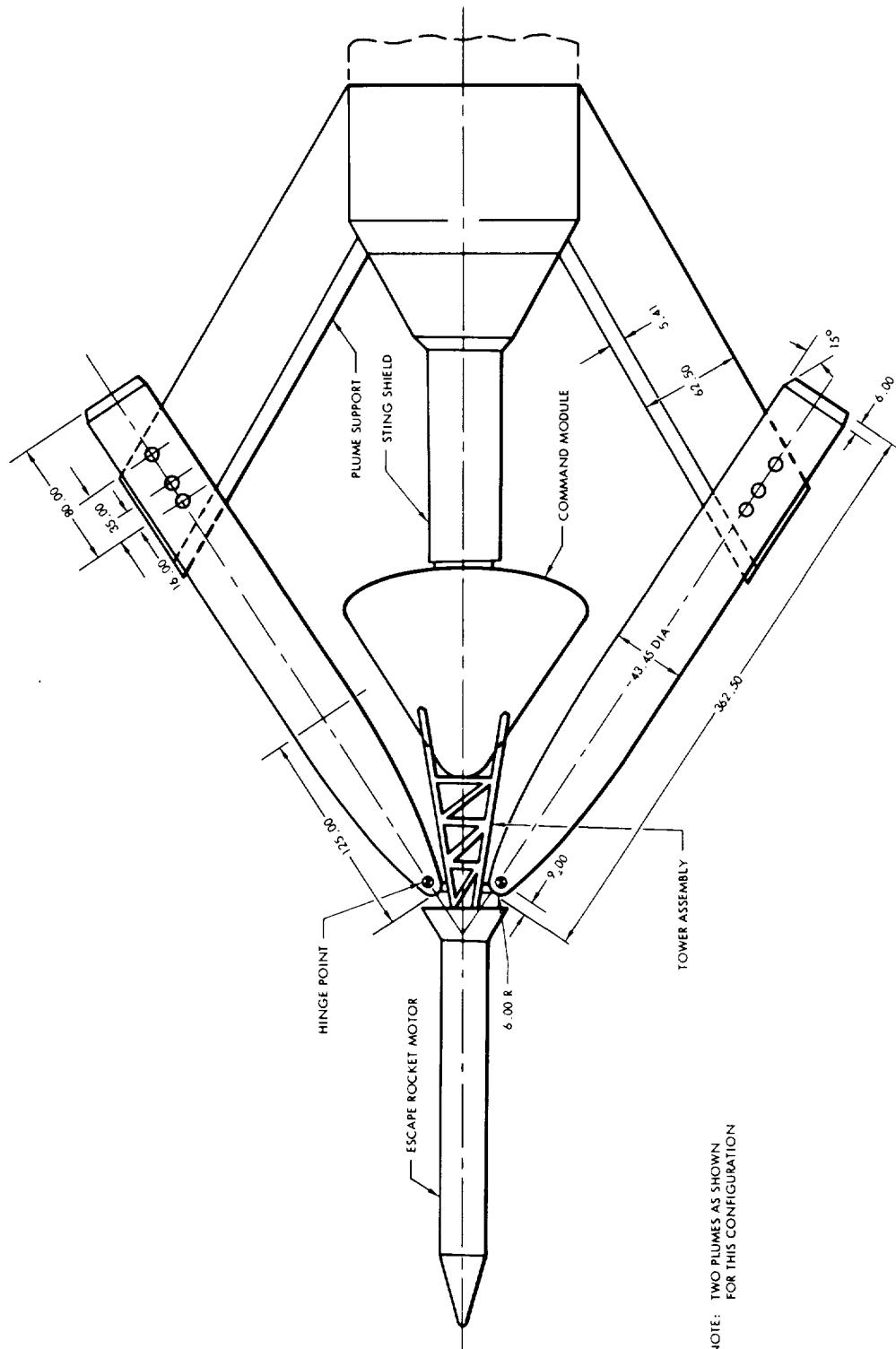
DRAWING NOT TO SCALE



NOTE: SINGLE PLUME AS  
SHOWN FOR THIS  
CONFIGURATION

FULL-SCALE DIMENSIONS IN INCHES

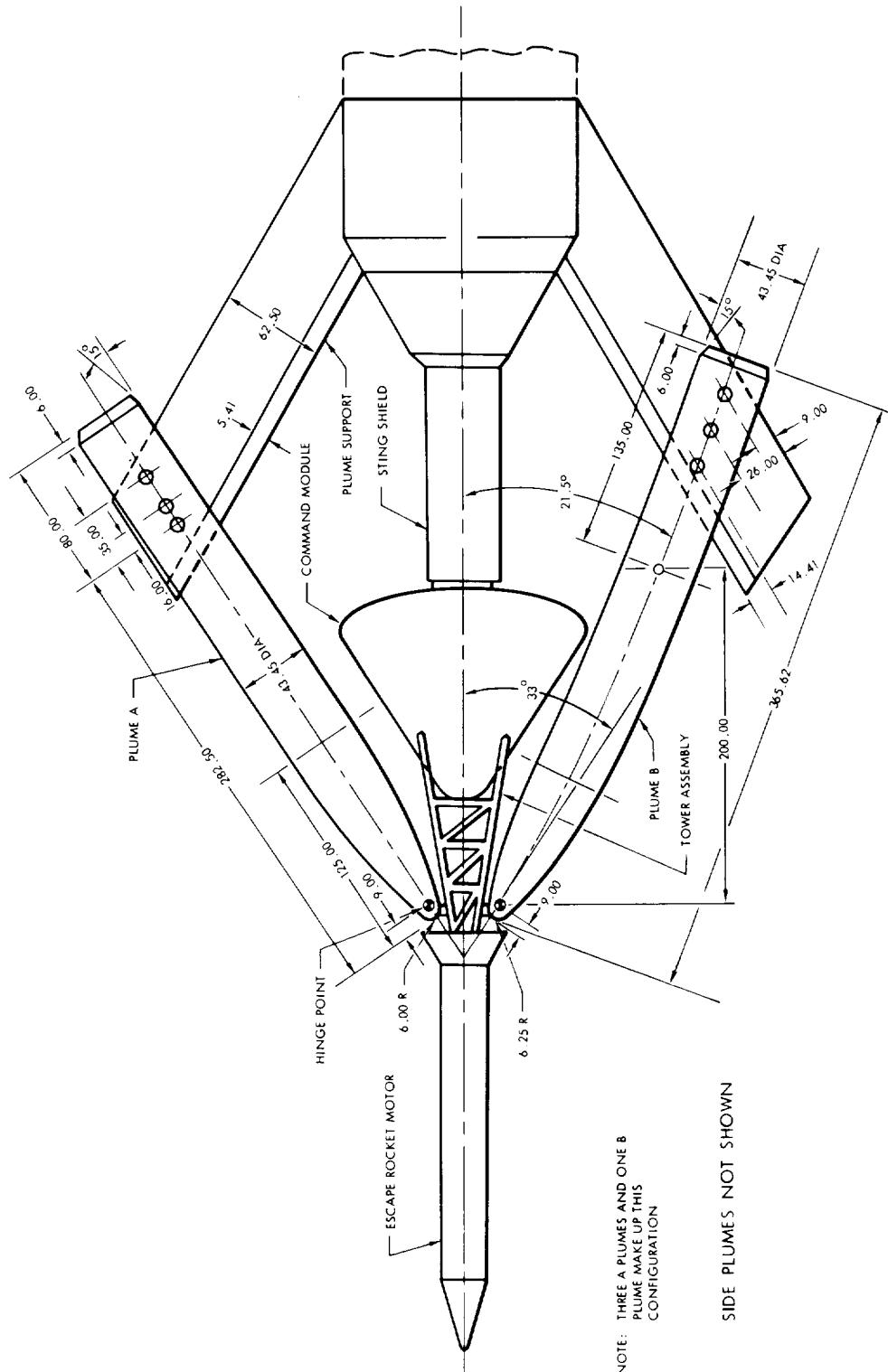
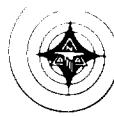
DRAWING NOT TO SCALE



TOP VIEW  
PLUME P 7

FULL-SCALE DIMENSIONS IN INCHES

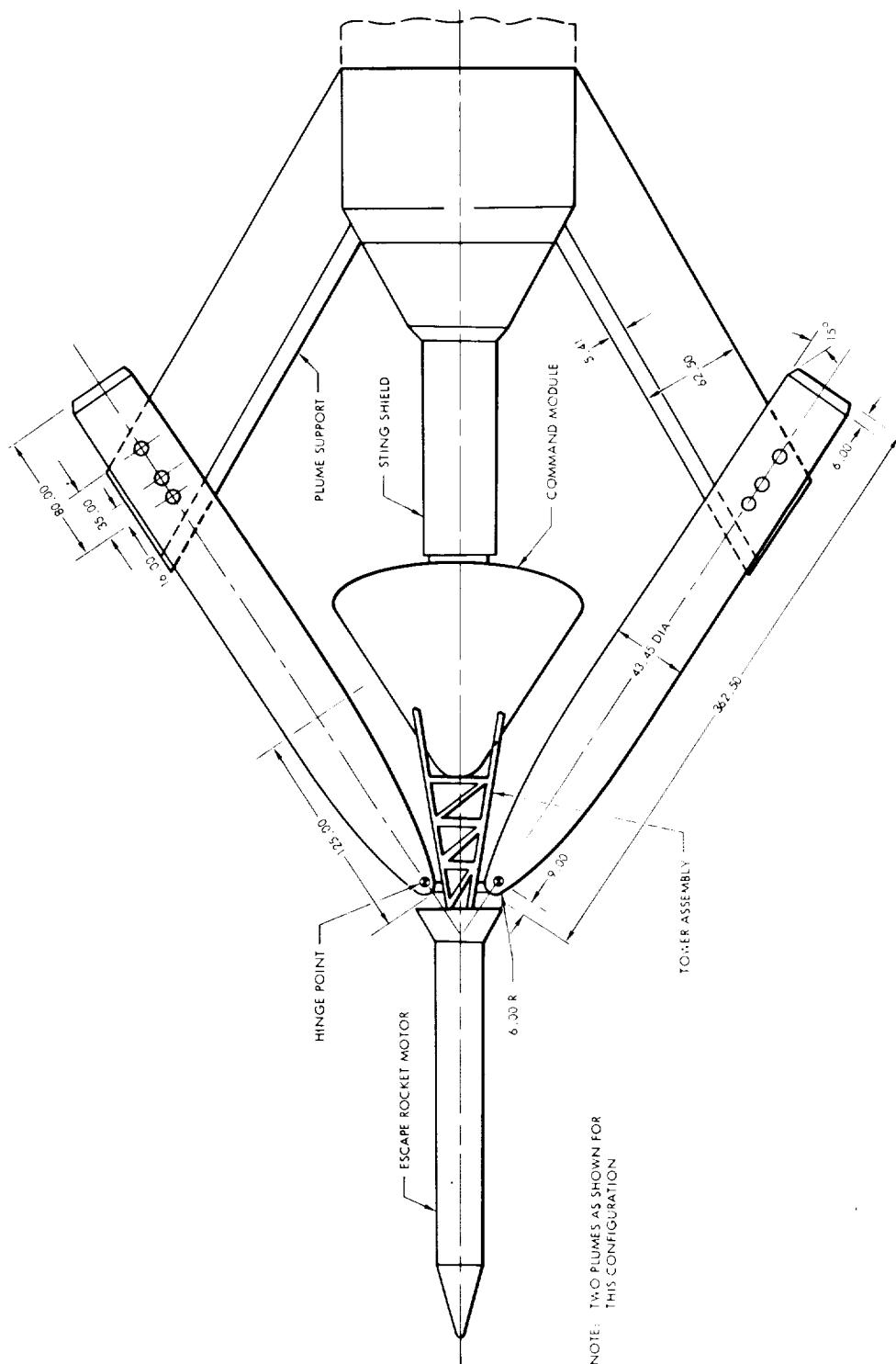
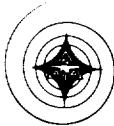
DRAWING NOT TO SCALE



SIDE VIEW  
PLUME P 8

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

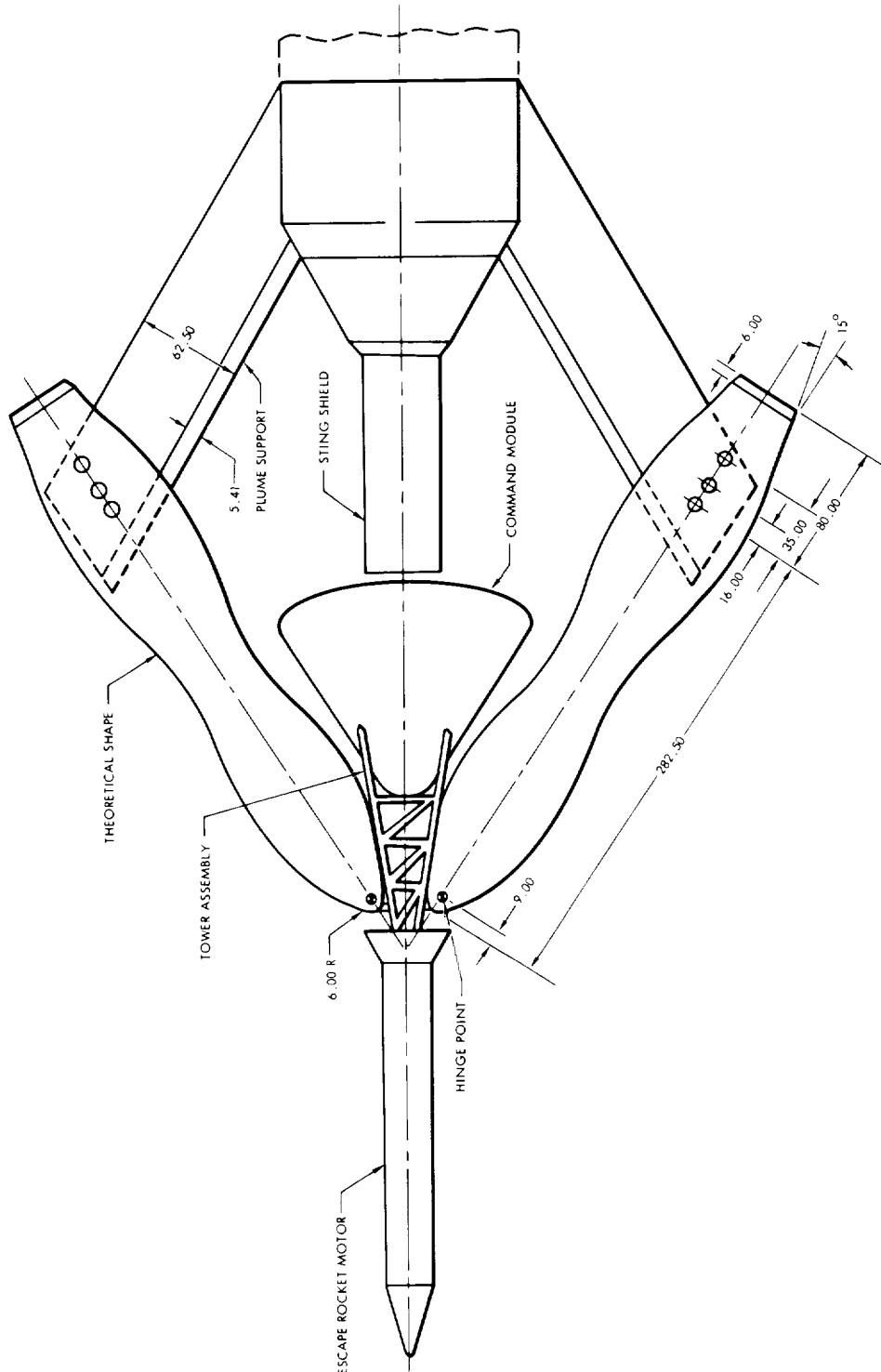


NOTE: TWO PLUMES AS SHOWN FOR THIS CONFIGURATION

FULL-SCALE DIMENSIONS IN INCHES

SIDE VIEW

DRAWING NOT TO SCALE

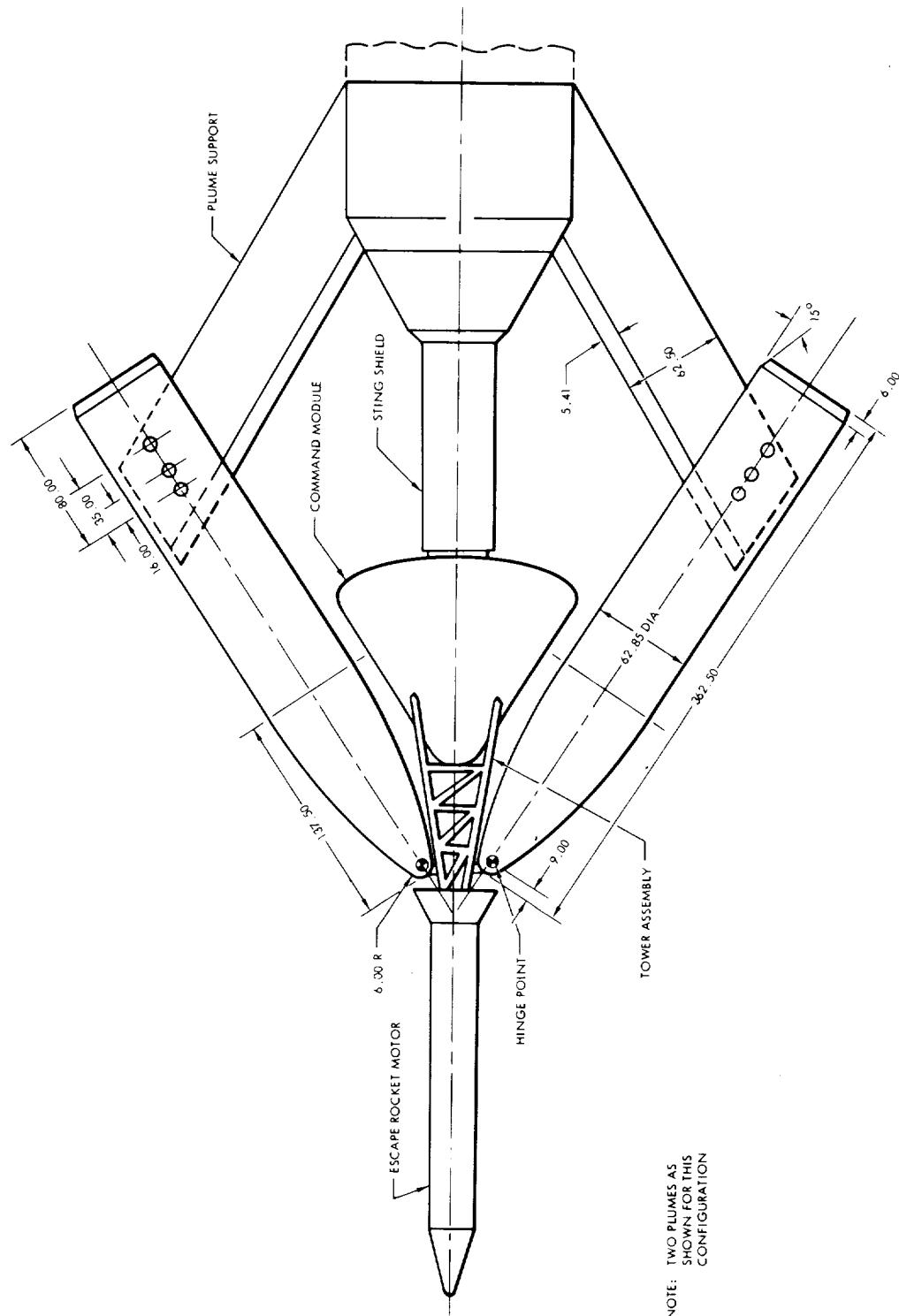


TOP AND SIDE VIEWS

PLUME P<sub>10</sub>

FULL-SCALE DIMENSIONS IN INCHES

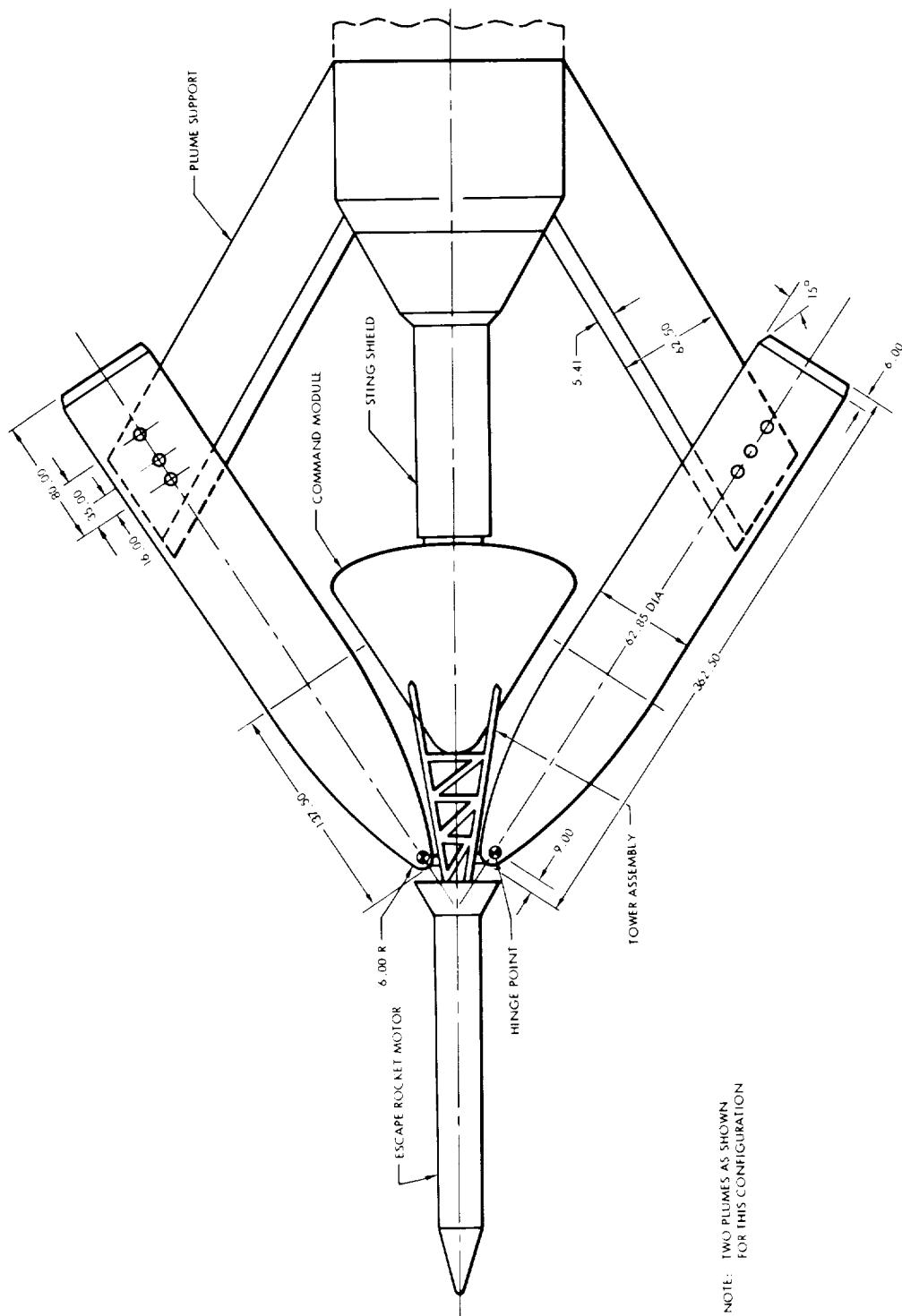
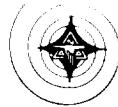
DRAWING NOT TO SCALE



TOP VIEW  
PLUME P 11

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



NOTE: TWO PLUMES AS SHOWN  
FOR THIS CONFIGURATION

FULL-SCALE DIMENSIONS IN INCHES

SIDE VIEW  
PLUME P 12

DRAWING NOT TO SCALE



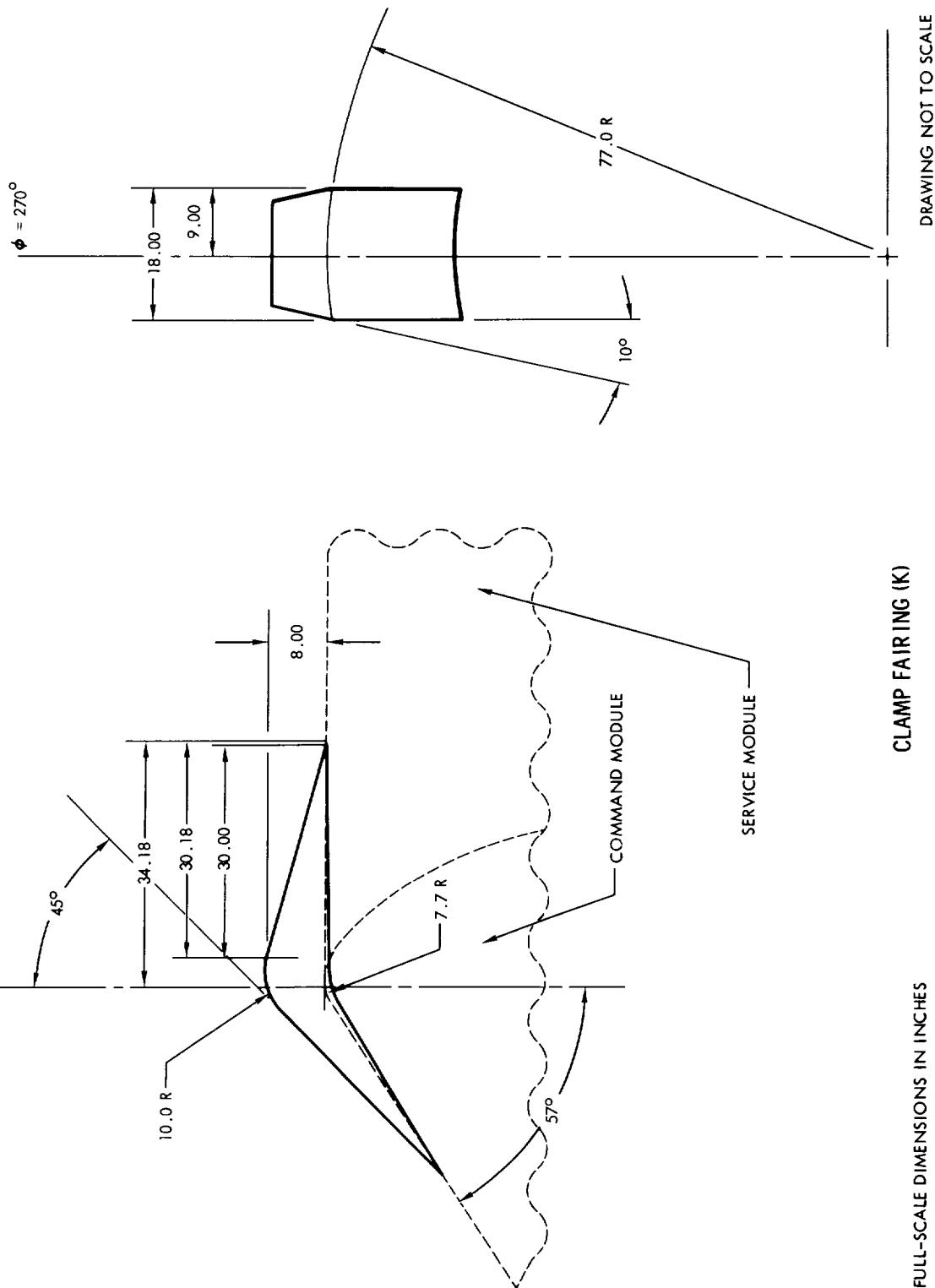


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
K	One boomerang shaped clamp fairing. Inside fairing to match contour of command module-service module fairing. Length of aft inside fairing (measured along clamp-service module contact points to maximum height) = 30.00 in. Height of clamp protruding beyond diameter of service module = 8.00 in. Outside forward and aft fairings joined by an arc of 10.00 in. radius; forward fairing at 45 deg. to module center-lines and extending to command module from tangent point of arc. Width of base = 18.00 in. Width of top = 16.59 in. Radial location, $\phi$ = 270 deg.	R. B. D.H.	PSTL -1	7121-01173-28	TWT-77	SID 62-745 SID 62-929 SID 62-1151
		E. F.	PSTL -1	7121-01173-28	Ames 102(14 by 14)	SID 62-799 SID 63-1480
		R. B. G.H.	PSTL -1	7121-01173-28	Ames 111 (8 by 7) 86 (11 by 11)	SID 62-799 SID 62-1353 -1 and -2 SID 63-1480
		R. B.	PSTL -1	7121-01173-28	Ames 106 (9 by 7)	SID 62-799 SID 62-809 -1 and -2 SID 63-1480
K <sub>2</sub>	Same as K except radial location, $\phi$ = 0 deg. (upper centerline) and width of top = 18.00 in.	J. W.	FSL-1	LH-100-22 7121-01136-22	Ames 87 (11 by 11) 105 (9 by 7) 110 (8 by 7)	SID 62-805 SID 62-1143



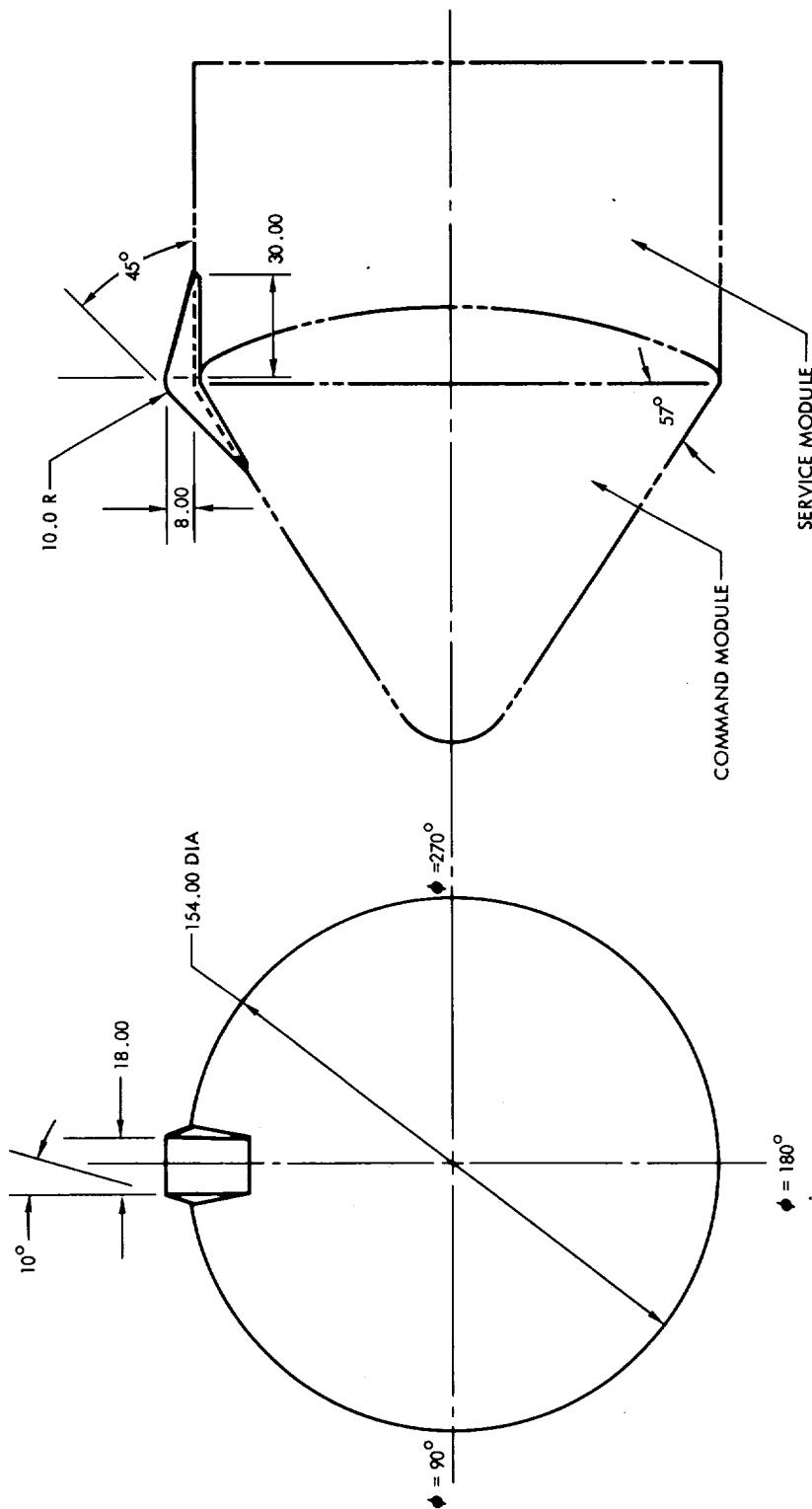
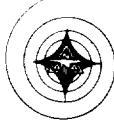
Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No. Pretest and Data Reports
K <sub>3</sub>	Same as K except three fairings instead of one. Radial locations, $\phi = 40.14, 139.86$ , and 270.00 deg.	E. F.	PSTL -1	7121-01173-28 102 (14 by 14)	Ames SID 62-799 SID 63-1480



DRAWING NOT TO SCALE

## CLAMP FAIRING (K)

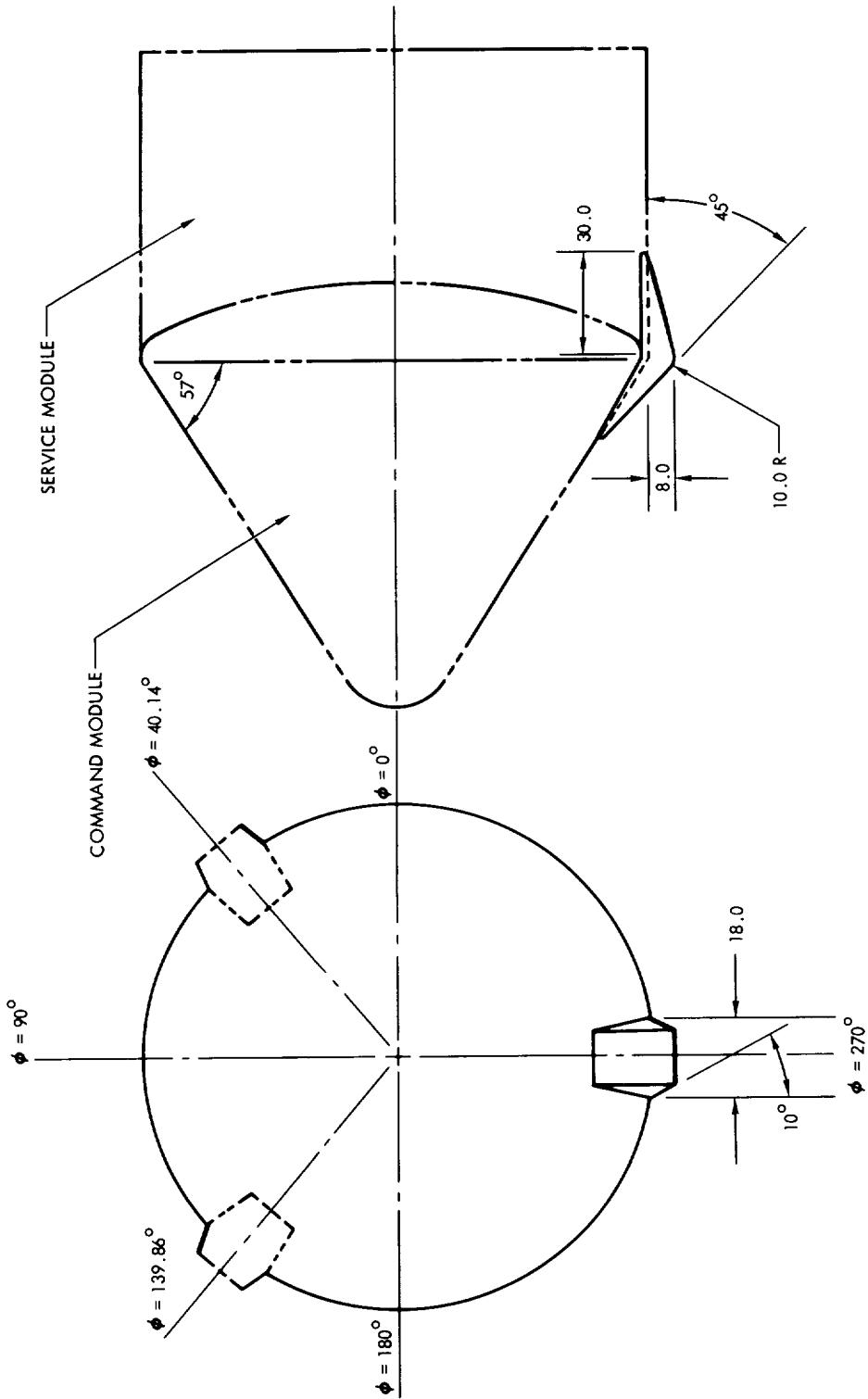
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

CLAMP FAIRING K<sub>2</sub>

DRAWING NOT TO SCALE

CLAMP FAIRING K<sub>3</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE





## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
N	Four convergent-divergent type escape rocket nozzles attached to escape rocket near rocket base. Nozzle centerline is referenced to the rocket centerline. Nozzles are located at $\phi = 0, 90, 180$ , and $270$ deg. Angle ( $\theta$ ) between nozzle centerline and rocket centerline = $35.0$ deg. Length (from throat to aft end) = $17.94$ in. Diameter of throat is variable. Inside diameter at aft end = $15.92$ in. Wall thickness = $0.74$ in. Diameter forward of throat = $8.82$ in. Convergent and divergent fairings are joined by a circular arc.	A. G.	FSJ-1	7121-01104-8, -13, -14, and -15 191(16 by 16)	Langley	SID 62-876 SID 63-754
N <sub>2</sub>	Same as N except $\theta = 42.0$ deg.	A. G.	FSJ-1	7121-01104-17 and -18	Langley 191(16 by 16)	SID 62-876 SID 63-754
N <sub>3</sub>	Same as N except $\theta = 21.0$ deg.	A. G.	FSJ-1	7121-01104-8, -13, -14, and -15 191(16 by 16)	Langley	SID 62-876 SID 63-754
N <sub>4</sub>	Same as N except $\theta = 14.0$ deg.	A. G.	FSJ-1	7121-01104-17 and -18	Langley 191(16 by 16)	SID 62-876 Not Tested
N <sub>5</sub>	Same as N except all throat diameters = $5.41$ in.	A. G.	FSJ-1	7121-01104-14 and -15	Langley 191(16 by 16)	SID 62-876 SID 63-754

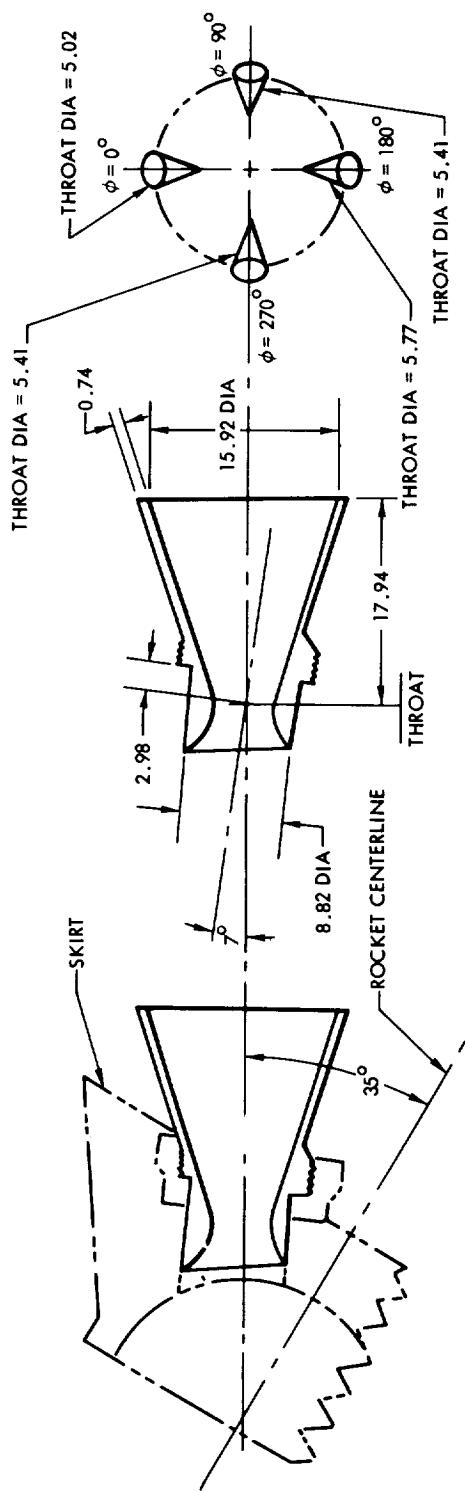


Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
N <sub>6</sub>	Four convergent-divergent type escape rocket nozzles attached to escape rocket near rocket base. Nozzles are located at $\phi = 0, 90, 180$ , and $270$ deg. Angle ( $\theta$ ) between nozzle centerline and rocket centerline = $35$ deg. Length of all nozzles = $8.88$ in. Aft end of nozzle (measuring along nozzle centerline) = $35.24$ in. aft of $35$ -deg vertex. Throat diameters at $\theta = 0, 90, 180$ , and $270$ deg = $12.23, 13.17, 14.06$ , and $13.17$ in. respectively. All exit diameters = $15.90$ in.	J. M. J. D.	FSJ-3	7121-01149-3, -5, and -7	AEDC Tunnel A VT-1244- A00
N <sub>7</sub>	Same as N <sub>6</sub> except nozzle lengths and throat diameters for $\phi = 0, 90, 180$ , and $270$ deg are as follows: $11.07$ and $10.39$ in., $10.67$ and $11.20$ in., $10.31$ and $11.95$ in., and $10.67$ and $11.20$ in. respectively.	J. M. J. D.	FSJ-3	7121-01149-9, -11, and -13	AEDC Tunnel A VT-1244- A00
N <sub>8</sub>	Same as N <sub>6</sub> except nozzle lengths and throat diameters for $\phi = 0, 90, 180$ , and $270$ deg are as follows: $13.63$ and $8.90$ in., $13.33$ and $9.58$ in., $13.08$ and $10.22$ in., and $13.33$ and $9.58$ in. respectively.	J. M. J. D.	FSJ-3	7121-01150-3, -5, and -7	AEDC Tunnel A VT-1244- A00

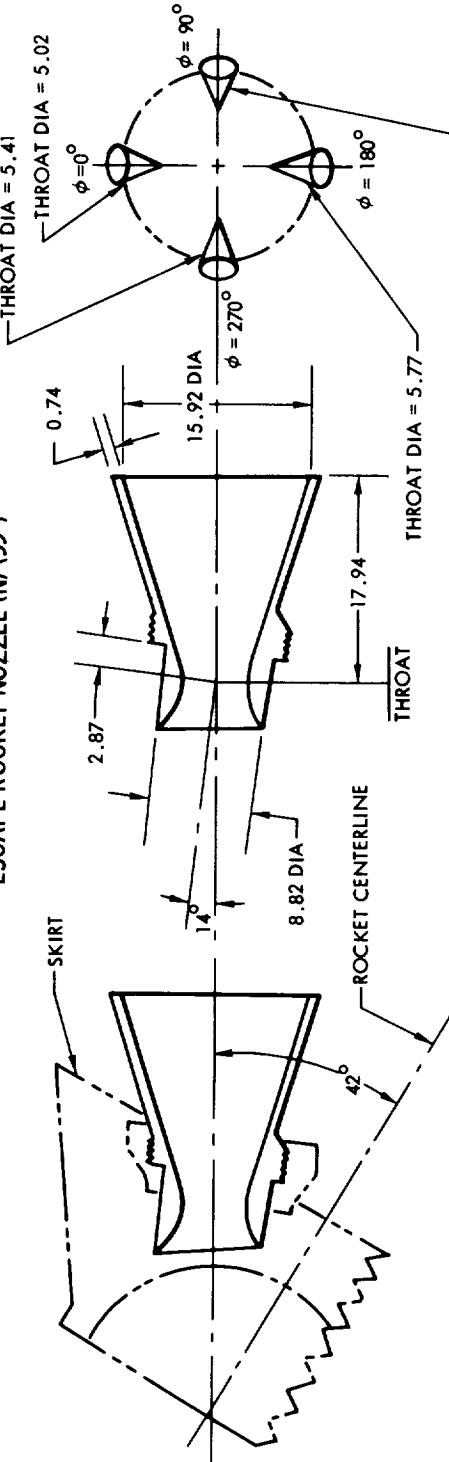


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
N <sub>9</sub>	Same as N <sub>6</sub> except nozzle lengths and throat diameters for $\phi = 0, 90, 180$ , and 270 deg are as follows: 13.46 and 7.73 in., 13.40 and 8.32 in., 13.27 and 8.88 in., and 13.40 and 8.32 in. respectively.	J. M.	F SJ-3	7121-01150-9, -11, and -13	AEDC Tunnel A VT-1244- A00	SID 63-352 Not tested

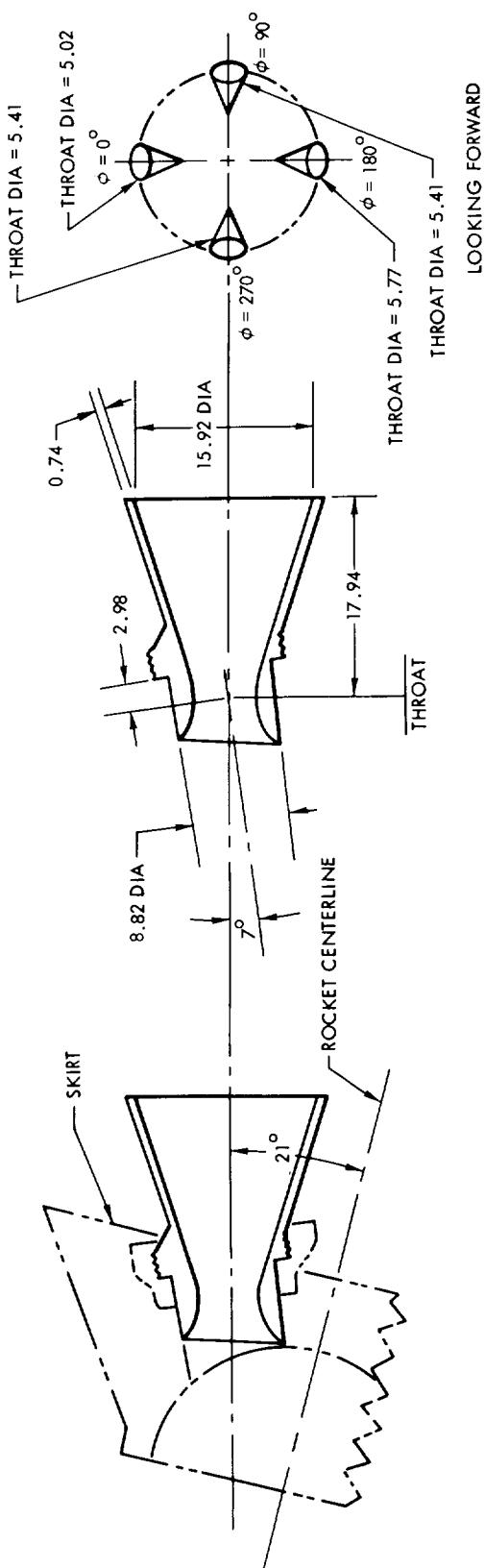


ESCAPE ROCKET NOZZLE N1 (359)

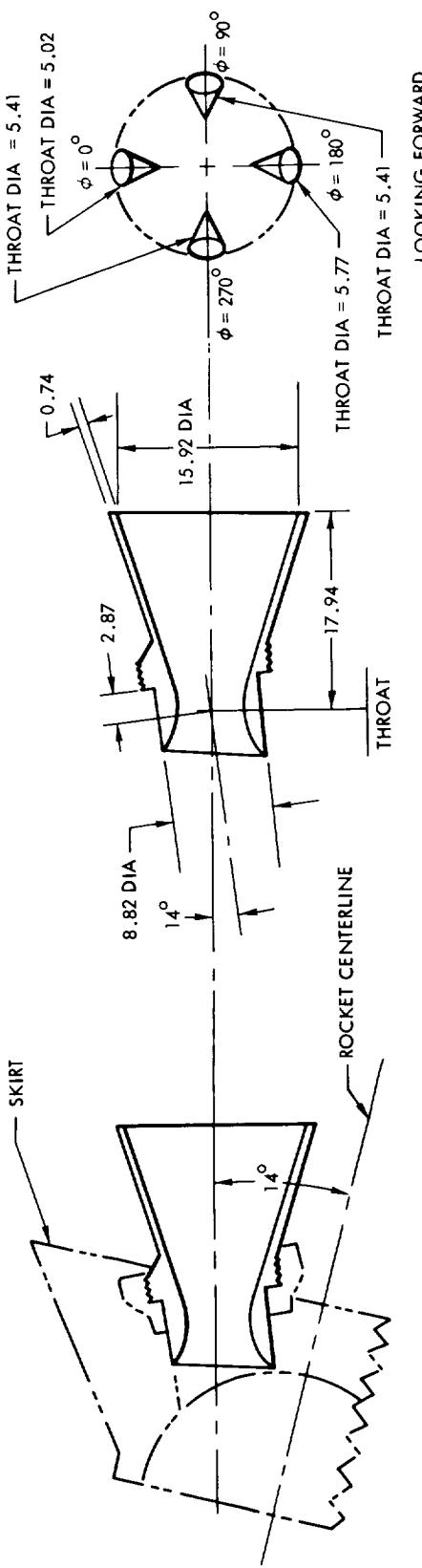


FULL-SCALE DIMENSIONS IN INCHES  
DRAWING NOT TO SCALE

ESCAPE ROCKET NOZZLE N<sub>2</sub> (420)



## ESCAPE ROCKET NOZZLE N<sub>3</sub> (210)

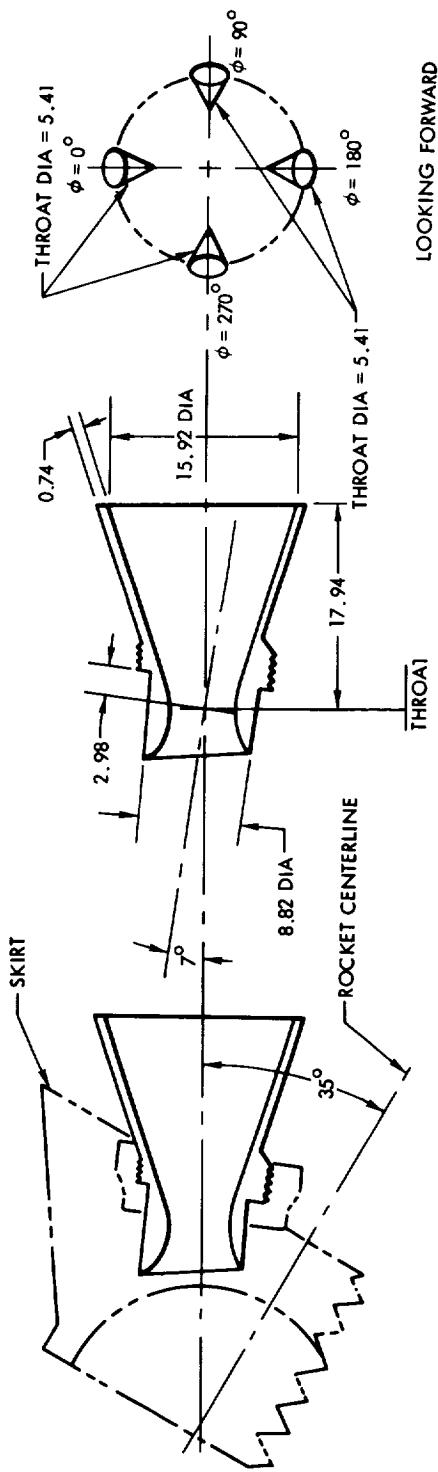


SID 63-44

FULL-SCALE DIMENSIONS IN INCHES

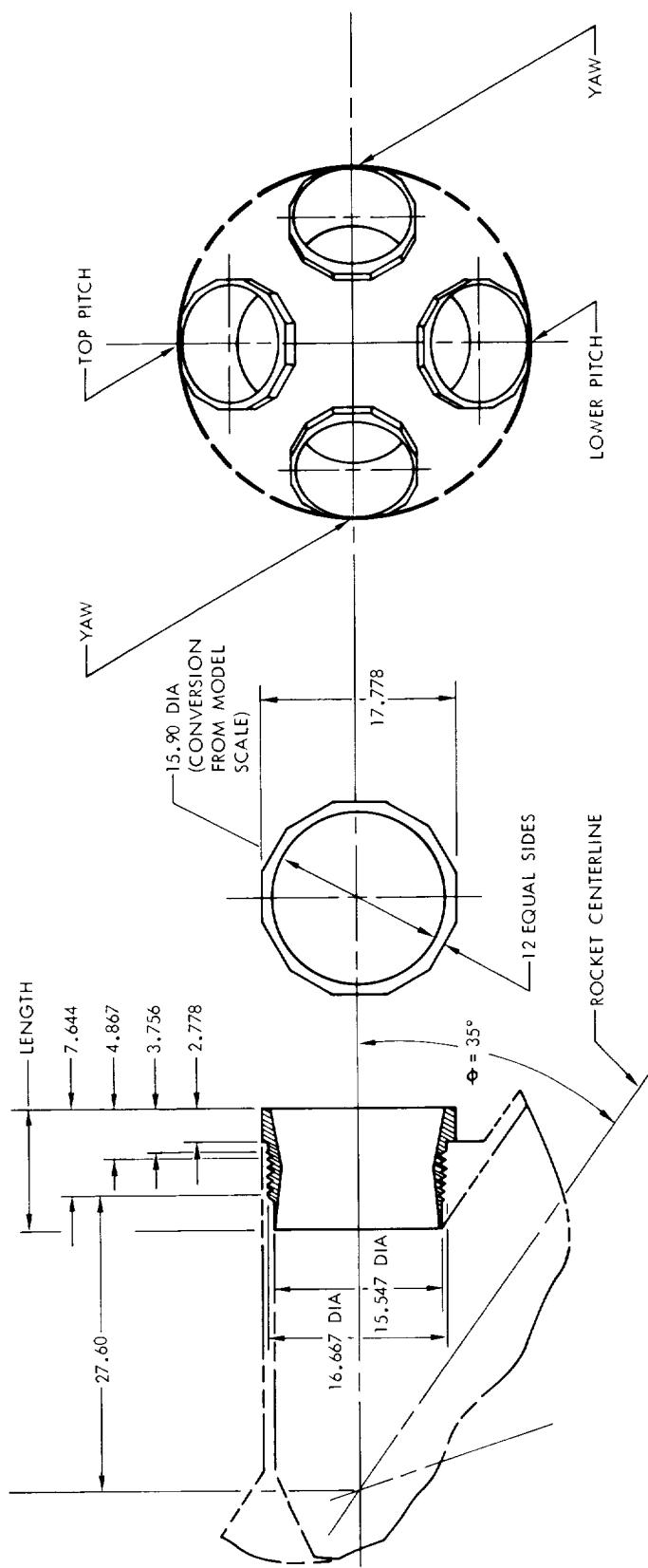
### ESCAPE ROCKET NOZZLE N<sub>A</sub> (14°)

DRAWING NOT TO SCALE

ESCAPE ROCKET NOZZLE N<sub>5</sub> (35°)

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



SET 1	NOZZLE	TOP PITCH	YAW	LOWER PITCH
N <sub>6</sub>	THROAT DIA LENGTH	12.229 8.880	13.173 8.880	14.056 8.880
SET 2				
N <sub>7</sub>	THROAT DIA LENGTH	10.393 11.073	11.198 10.671	11.947 10.307
SET 3				
N <sub>8</sub>	THROAT DIA LENGTH	8.896 13.627	9.584 13.333	10.224 13.076
SET 4				
N <sub>9</sub>	THROAT DIA LENGTH	7.727 13.462	8.324 13.400	8.880 13.271

ESCAPE ROCKET NOZZLES N<sub>6</sub>, N<sub>7</sub>, N<sub>8</sub>, AND N<sub>9</sub>

SID 63-44

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE





Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
R	Rockets - Four reaction control motors located on the service module 67.82 in. aft of the command module-service module tangent point and radially at $\phi = 0, 90, 180$ and 270 deg. Each motor has 4 nozzles orientated parallel and perpendicular to the service module centerline at 90 deg intervals. Over-all length and width from nozzle exit to nozzle exit = 25.47 in. External dimensions of each nozzle: length = 9.23 in.; maximum diameter = 6.00 in.; exit diameter = 5.69 in. Centerline of nozzles are 5.49 in. above surface of service module. Nozzles are attached to an octagonal block which, in turn, is mounted to the service module through a circular plate.	E. F. R. B. R. B.	PSTL-1 PSTL-1 PSTL-1	None None None	102 (14 by 14) 111 (8 by 7) 86 (11 by 11)	SID 62-799 SID 62-1353 -1 and -2 SID 63-1480
E. P.		M. C.	SD-1	7121-01240-13	LTTT 48(16 by 16)	SID 62-841 SID 63-33



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
R <sub>2</sub>	Same as R except motors are located 68.02 in. aft of the command module-service module tangent point.	W. B. D. E.	HL-1	7121-01261-21	AEDC Tunnel C 304244-500	SID 62-1214 SID 63-688
R <sub>3</sub>	Four Posigrade rockets located on the service module 194.72 in. aft of the command module-service module tangent point and radially at $\phi = 84.5, 174.5, 264.5$ , and $354.5$ deg. Total length = 49.05 in.; height and width = 4.76 in. Top of main body of rocket is hemispherical with radius = 2.38 in. Forward end is swept back 70 deg to vertical. Nozzle is orientated outwardly at an angle of 23 deg 25 min to rocket centerline. Minimum diameter = 2.63 in.; exit diameter = 4.25 in.	M. C. E. P.	SD-1	7121-01240-14	LTDT 48 (16 by 16)	SID 62-841 Not Tested
R <sub>4</sub>	Four reaction control motors located on the service module 67.90 in. aft of the command module-service module tangent point and radially at $\phi = 0, 90, 180$ , and 270 deg. Each motor has four nozzles orientated	D. C.  B. C.	FSL-1  FSL-1	7121-01136-34 LH-100-34 7121-01136-34 LH-100-34	TWT-84  NACAL- 104	SID 62-670 SID 63-35 SID 62-669 SID 62-1436



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
R <sub>4</sub> (Cont)	parallel and perpendicular to the service module centerline at 90-deg intervals. Over-all length and width from nozzle exit to nozzle exit = 25.50 in. External dimensions of each nozzle: length = 9.20 in.; maximum diameter = 5.70 in.; exit diameter = 5.70 in. Centerline of nozzles are 4.0 in. above surface of service module.	J. W.	FSL-1	LH-100-34 7121-01136-34	Ames 87 (11 by 11) 105 (9 by 7) 110 (8 by 7)	SID 62-805 SID 62-1143 SID 62-1143
R <sub>5</sub>	Four reaction control motors located on the service module 61.37 in. aft of the command module-service module tangent point and radially at $\phi$ = 82.75, 172.75, 262.75, and 352.75 deg. Each motor has four nozzles orientated at 90 deg to each other. The centerlines of the forward and aft nozzles lie in the same plane as the service module centerline, while the centerlines of the two side nozzles are located 1.20 in. forward and 1.20 in. aft of the reaction control motor unit centerline. External dimensions of each nozzle: mounted normal to side of mounting block; length (from attach	G. U.	H-2	7121-011268-6	AEDC Tunnel A 304244-300 AEDC Tunnel B 304244-400	S&ID IOL 223-140-63-023 VT-1244-C00 S&ID IOL 223-140-63-023 VT-1244-C00 SID 63-1135

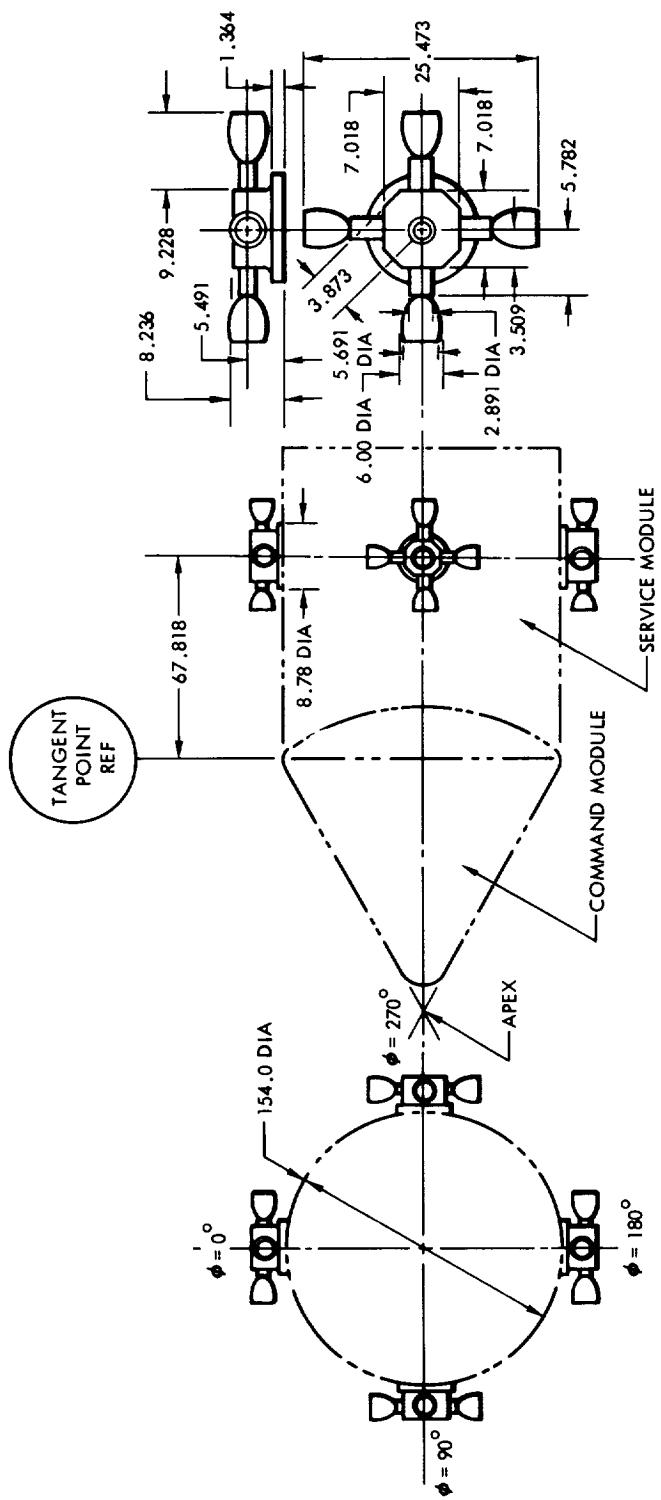


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
R <sub>5</sub> (Cont)	point to mounting block) = 9.89 in; maximum and exit diameters = 5.62 in.; throat diameter = 1.20 in.; throat is located 3.00 in. from mounting block; height of nozzle centerline at mounting block = 6.51 in. above service module surface; nozzle is angled outward 10 deg to mounting block horizontal centerline. The mounting block is trapezoidal in shape with the top and bottom being rectangular; length and width of top = 11.64 in. and 6.87 in. respectively; height = 8.76 in.					
R <sub>6</sub>	Same as R <sub>5</sub> except height of nozzle centerline at mounting block center- line = 6.51 in. above service module surface and length and width of top of mounting block = 11.64 in. and 4.64 in. respectively.	J. S. P. B.	PSTL-2	7121-01190-7	Ames 37(9 by 7) 37(11 by 11)	SID 63-1027
R <sub>7</sub>	Same as R <sub>6</sub> except motors are located radially at $\phi = 0, 90, 180,$ and 270 deg.	J. S. P. B.	PSTL-2	7121-01190-7	Ames 37(9 by 7) 37(11 by 11)	SID 63-1027



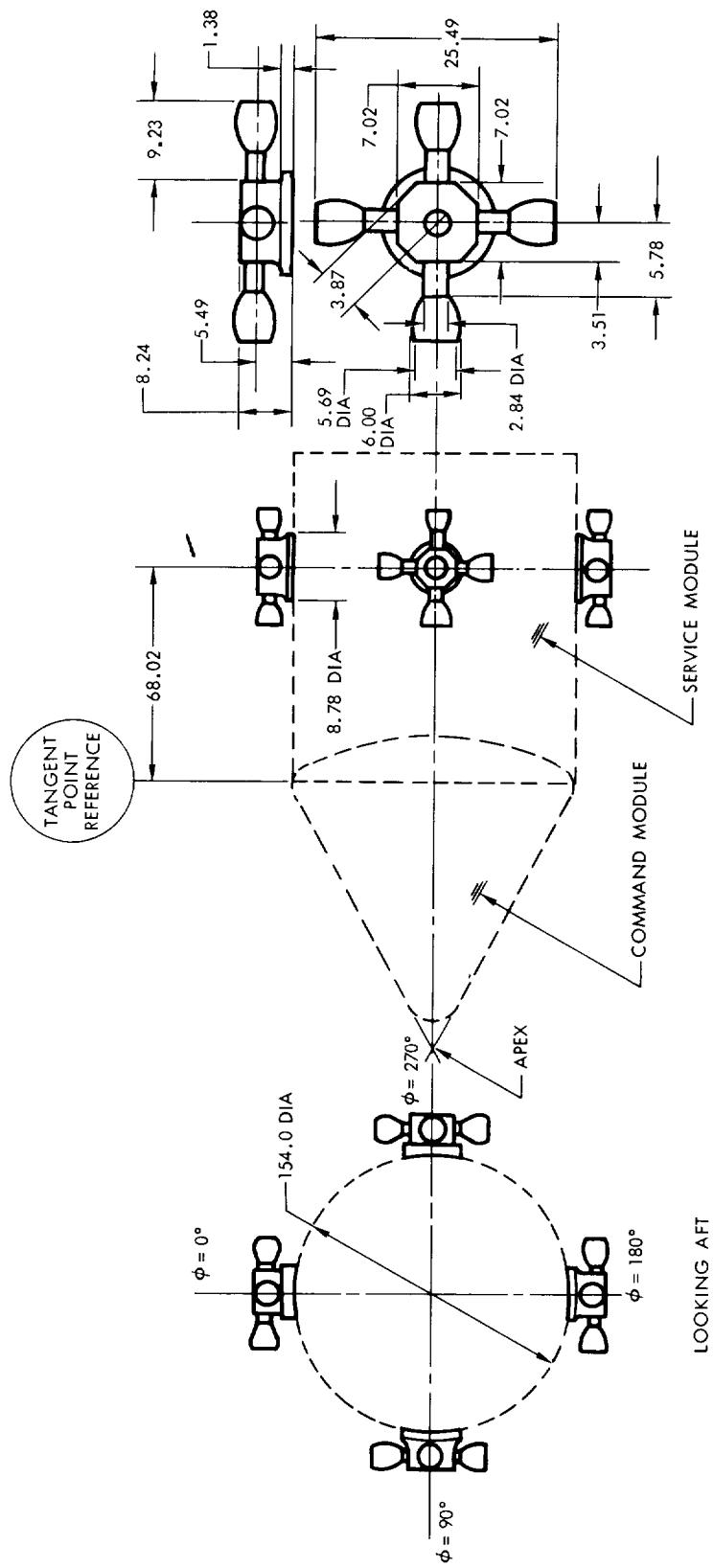
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
R <sub>8</sub>	Rocket Fairing - Four fairings located 15:84 in. aft of command module - service module tangent point and radially at $\phi = 82.75^\circ$ , $172.75^\circ$ , $262.75^\circ$ , and $352.75^\circ$ deg. Total length = 107.56 in., height (from 21.411 to 63.248% of length) = 11.80 in., width (from 21.411 to 63.248% of length) = 16.00 in., L.E.R. = 2.50 in., and T.E.R. = 1.25 in.	J.S. P.B.	PSTL- 2	None	Ames 37(9 by 7) 37(11 by 11)	SID 63-1027



FULL-SCALE DIMENSIONS IN INCHES

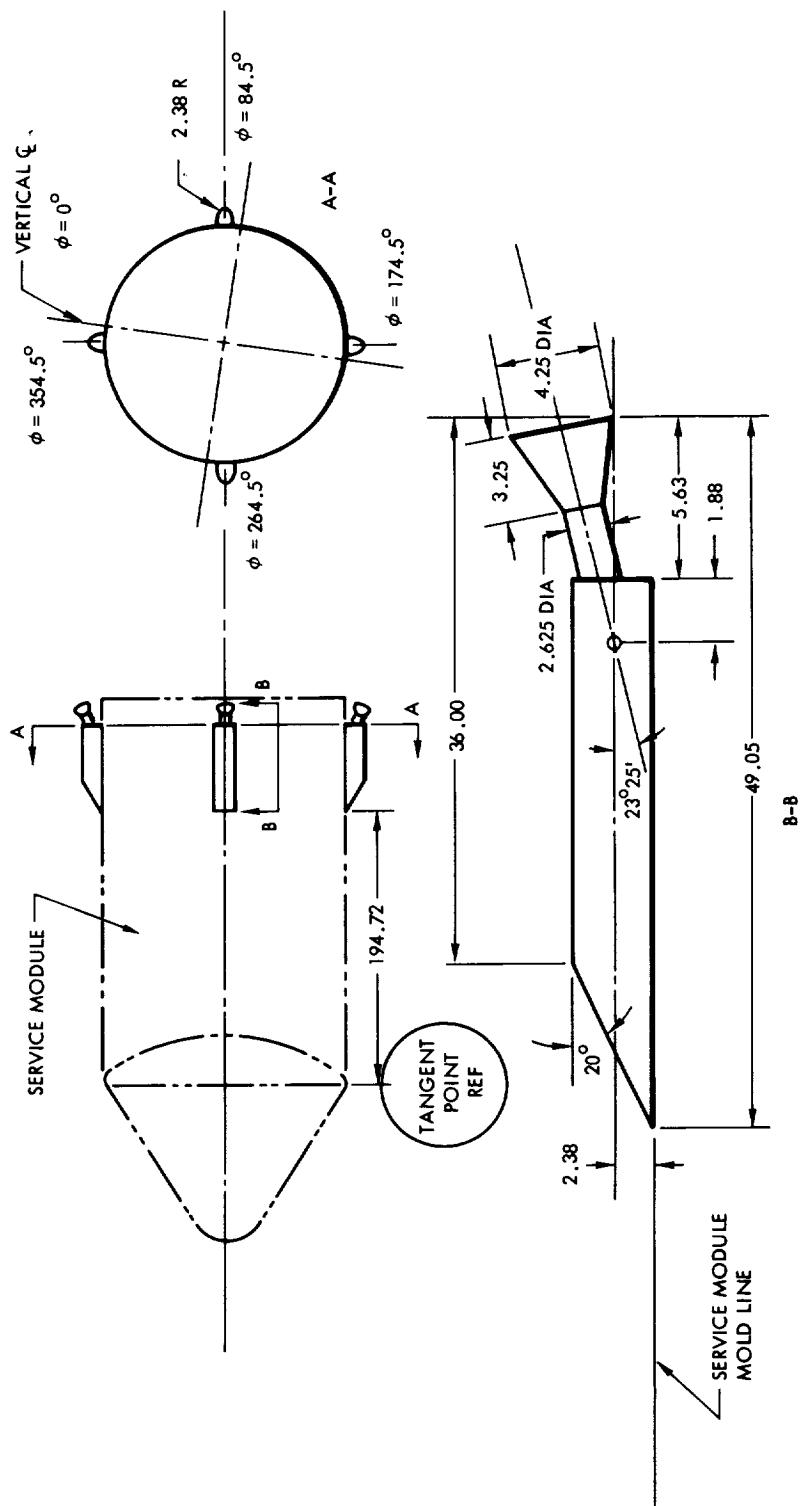
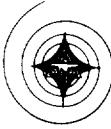
ROCKETS (REACTION CONTROL MOTORS) (R)

DRAWING NOT TO SCALE

ROCKET (REACTION CONTROL MOTOR) R<sub>2</sub>

FULL-SCALE DIMENSIONS IN INCHES

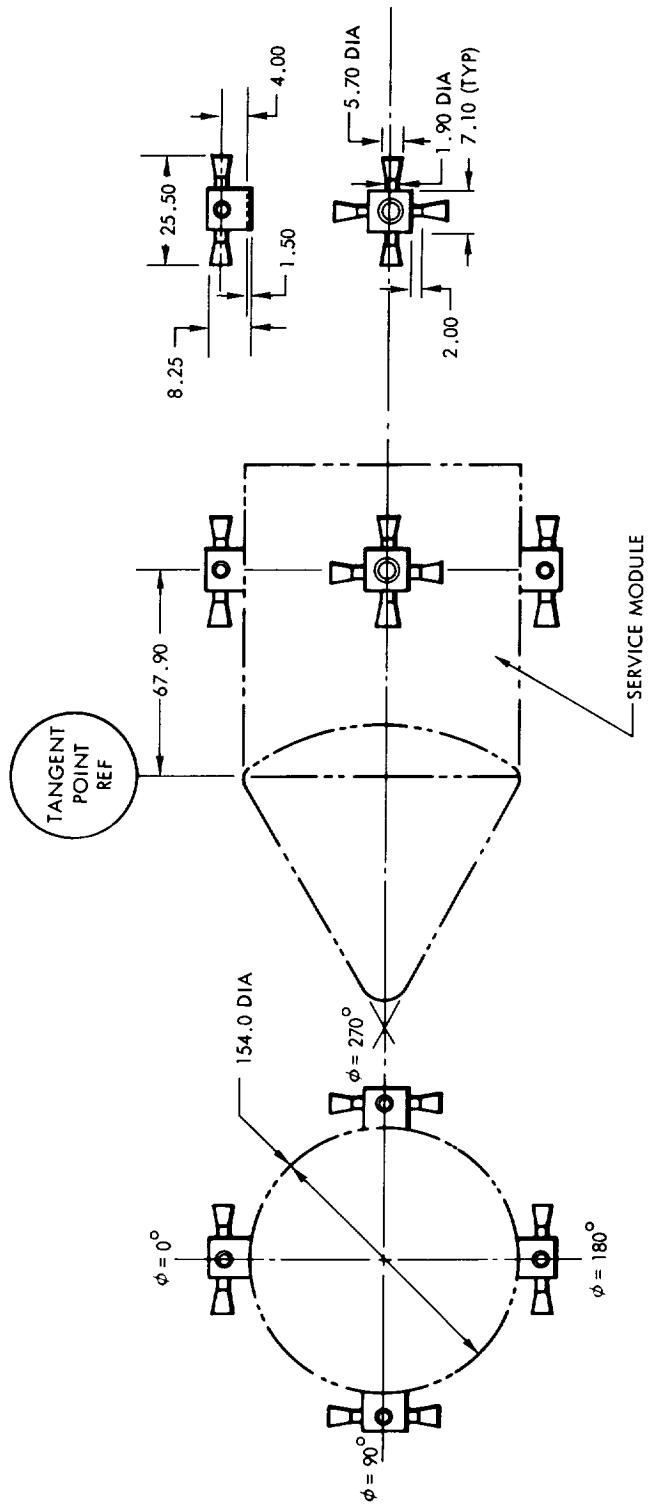
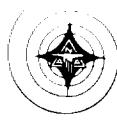
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

ROCKETS (POSI GRADE) R<sub>3</sub>

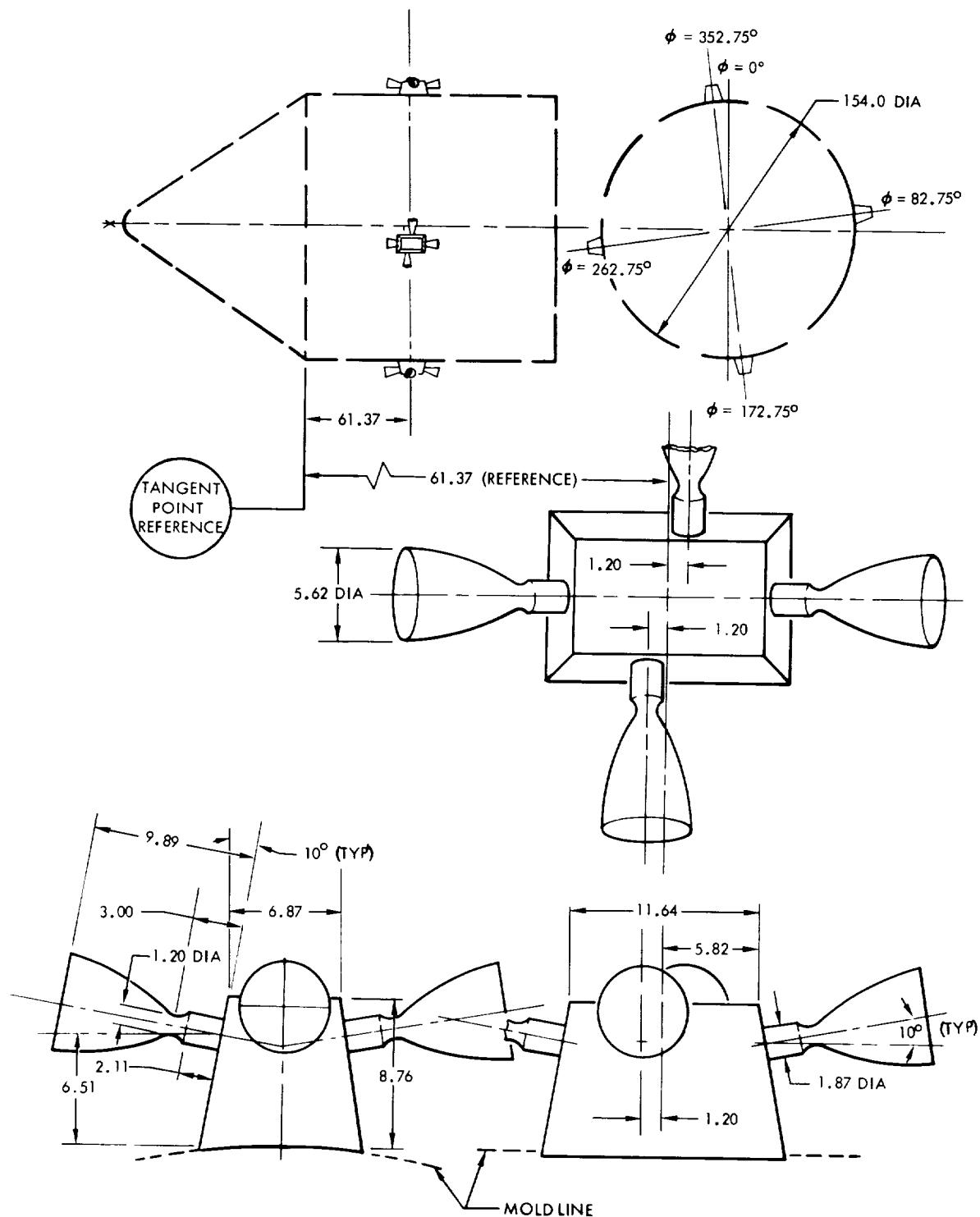
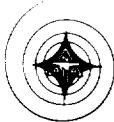
DRAWING NOT TO SCALE



ROCKETS (REACTION CONTROL MOTORS) R 4

FULL-SCALE DIMENSIONS IN INCHES

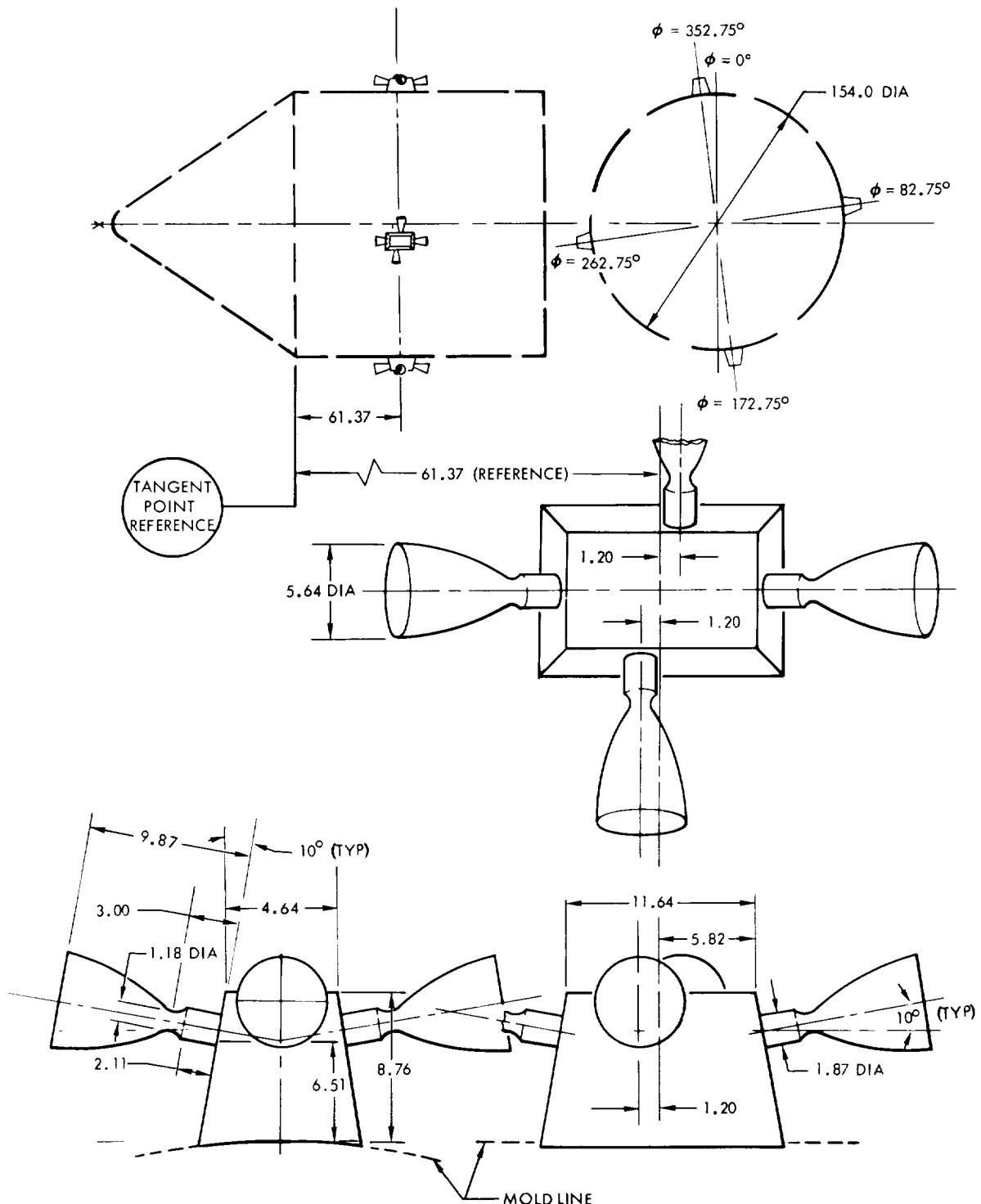
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

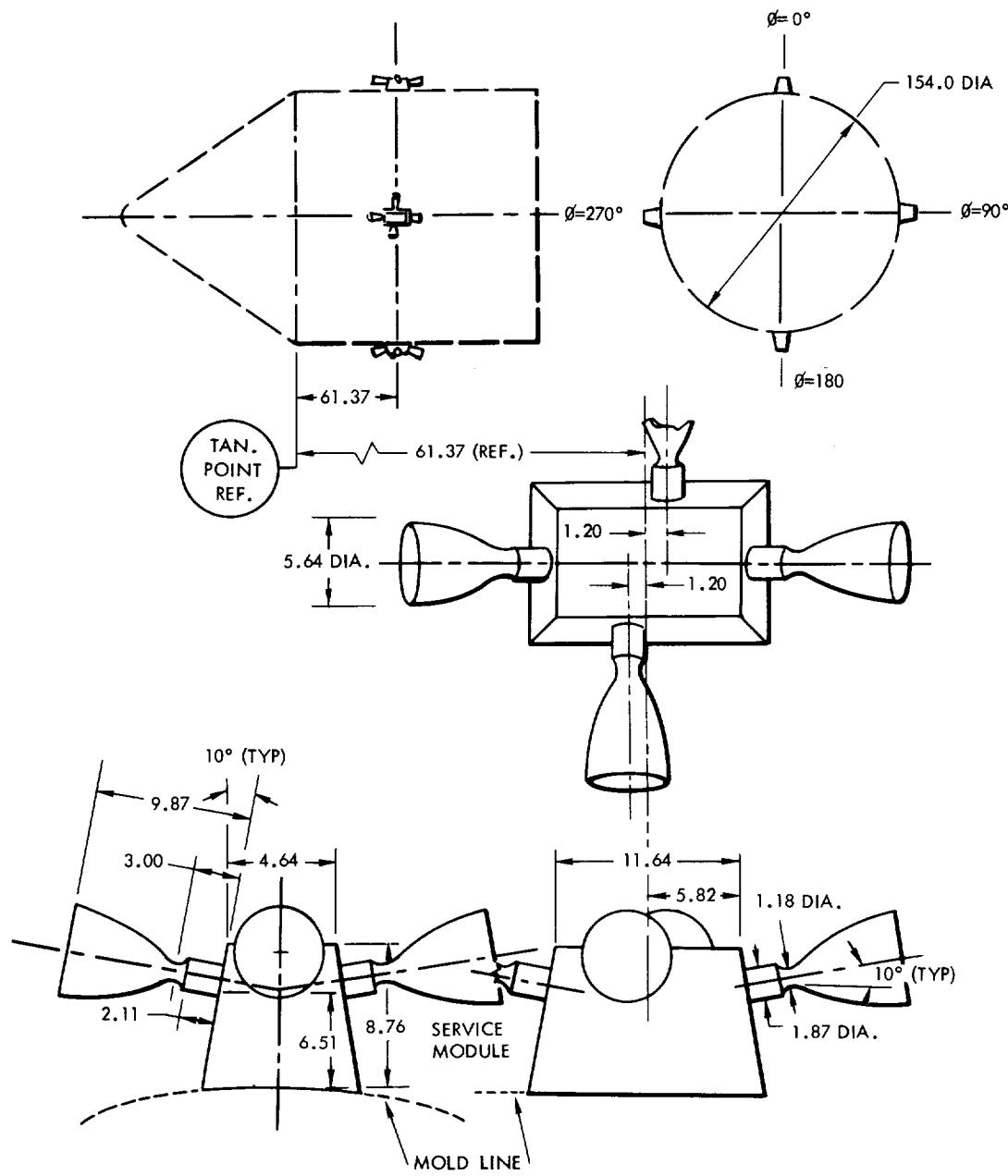
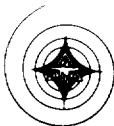
ROCKETS (REACTION CONTROL MOTORS) R5



FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ROCKETS (REACTION CONTROL MOTORS) R<sub>6</sub>



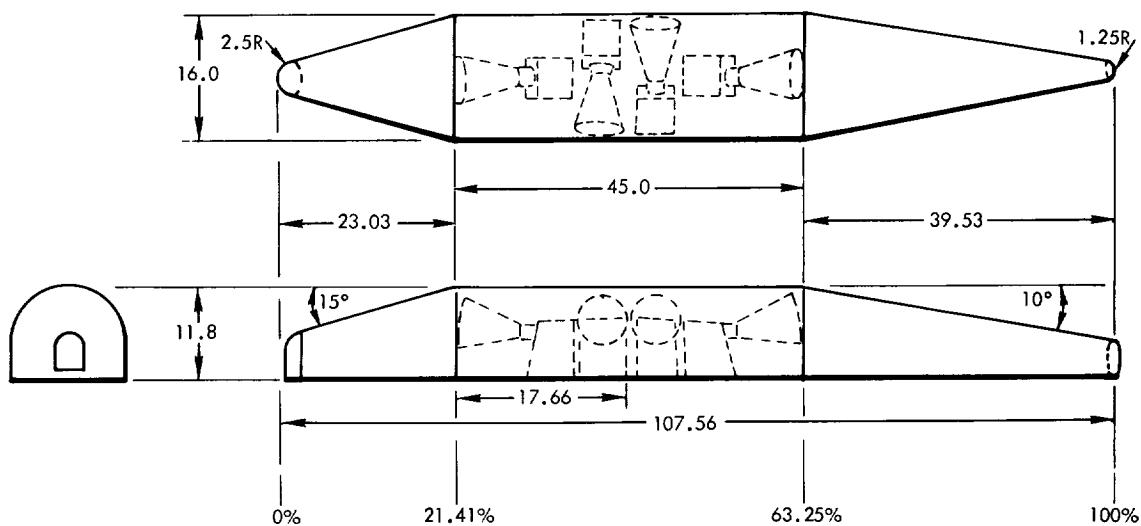
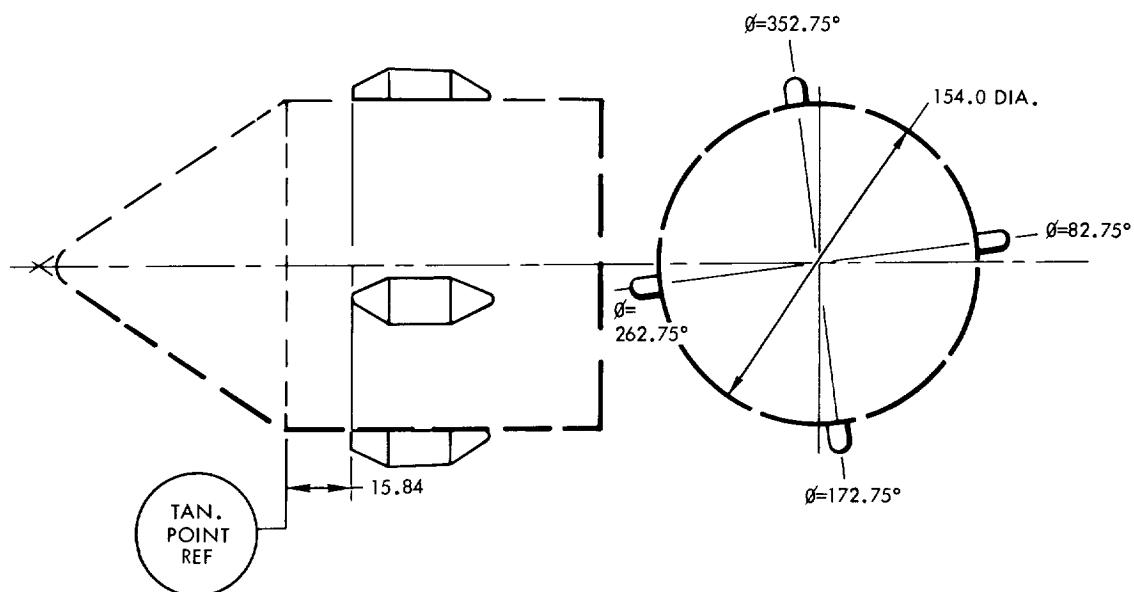
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ROCKETS (REACTION CONTROL MOTORS) R7

10-12

SID 63-44

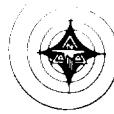


FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

ROCKETS (REACTION CONTROL SYSTEM FAIRING) R<sub>8</sub>



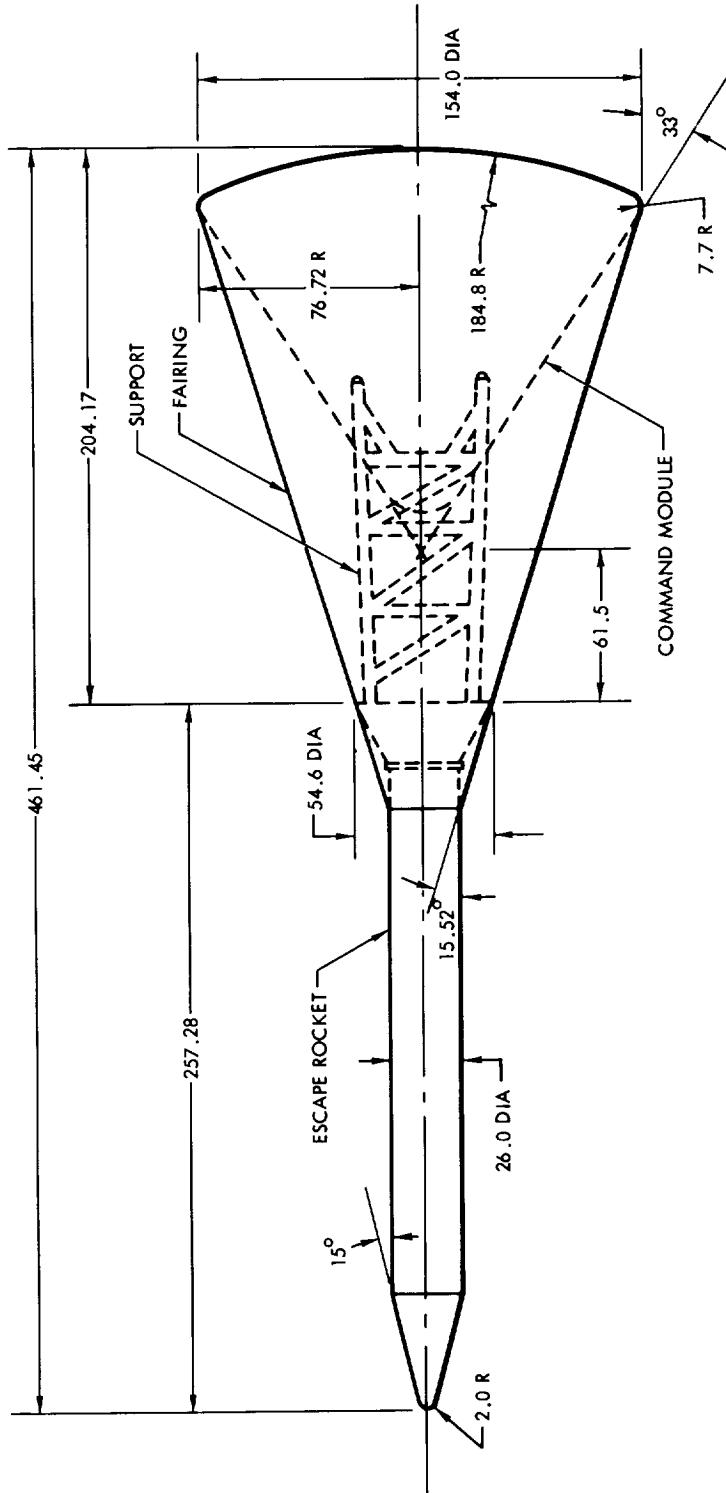


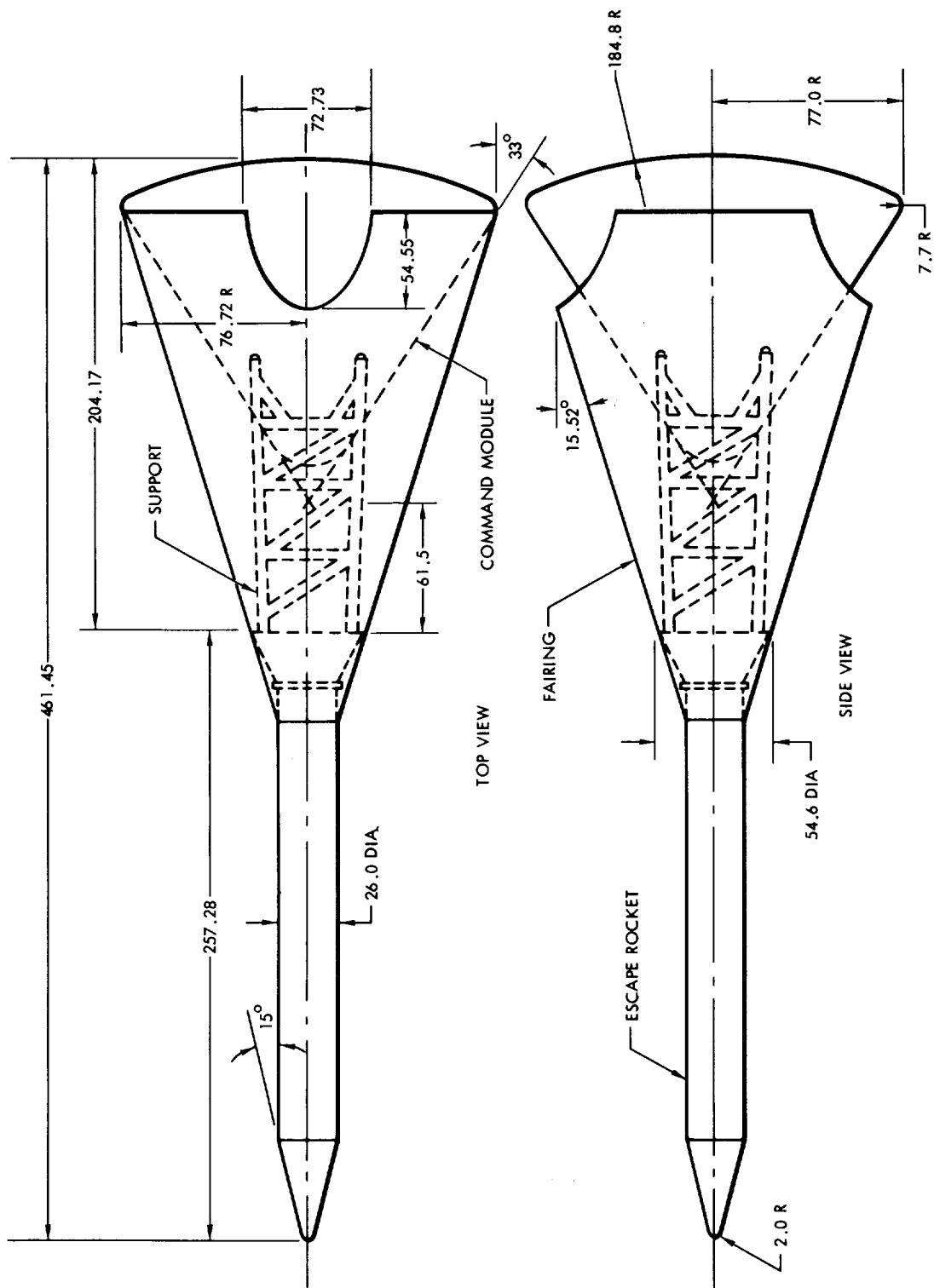
Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	PSTL-Model	Drawing No.	Test No.
A	Alternate pay load - Consists of escape rocket, support, command module, and fairing. Rocket dimensions: length = 257.28 in.; base diameter = 54.6 in.; nose radius = 2.0 in.; nose included angle = 30 deg; and rocket diameter = 26.0 in. Support connects rocket motor and command module such that the module apex is 61.5 in. aft of the escape rocket base. Command module dimensions: radius of spherical blunt end = 184.8 in.; corner radius = 7.7 in.; maximum diameter = 154.0 in.; nose cone semiangle = 33 deg and a variable nose cone vertex radius. Fairing extends from a point tangent to the 7.7-in. corner radius of the command module to the maximum diameter of the escape rocket base and continues to the rocket body. The fairing is a regular surface with no external protrusions.	E. F.	PSTL-1	None	Ames 102 (14 by 14) SID 62-799 SID 63-1480



## Apollo Wind Tunnel Model Nomenclature

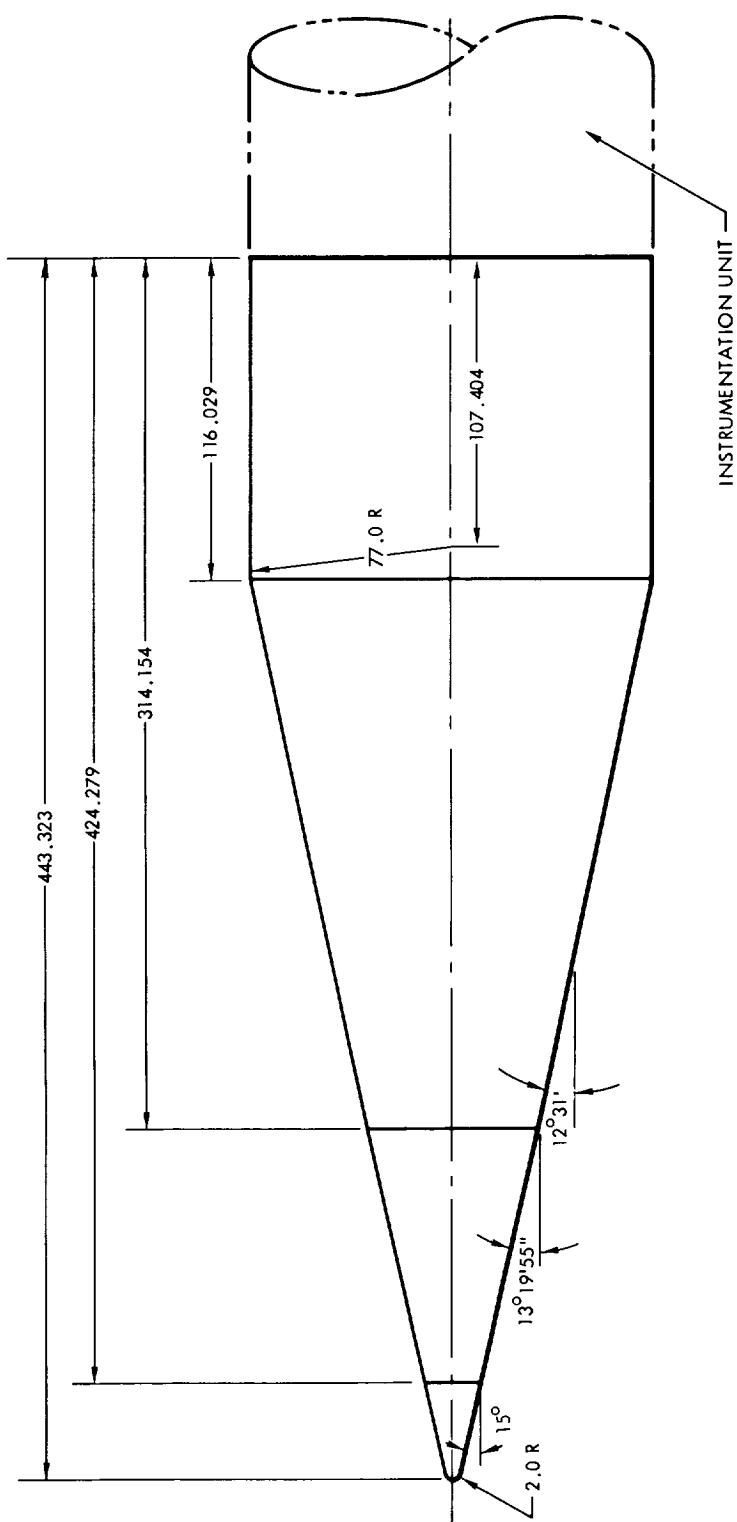
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
A <sub>2</sub>	Same as A except a hyperbolic-type section (top view) is removed from fairing. Length of hyperbolic chord = 72.73 in. Height of arch from chord = 54.55 in.	E. F.	PSTL-1	None	Ames 102 (14 by 14)	SID 62-799 SID 63-1480
A <sub>3</sub>	Consists of a conical surface of three different tapers and a cylindroidal aft end. Total length = 443.32 in. Length of cylindroidal aft end = 116.03 in.; diameter = 154.0 in. Conical surface and aft end are joined by an arc of radius = 77.0 in. whose center is located 107.40 in. forward of base. First taper (12 deg 31 min) occurs from tangent point of arc and extends to 314.15 in. forward of base. Second taper (13 deg 19 min 55 sec) extends for the next 110.13 in. The last taper (15 deg) extends to a point tangent to the 2.0 in. nose radius.	M. C. E. P.	SD-1	7121-01224-3	LTTT 48 (16 by 16)	SID 62-841 SID 63-33



ALTERNATE PAYLOAD A<sub>2</sub>

FULL-SCALE DIMENSIONS IN INCHES

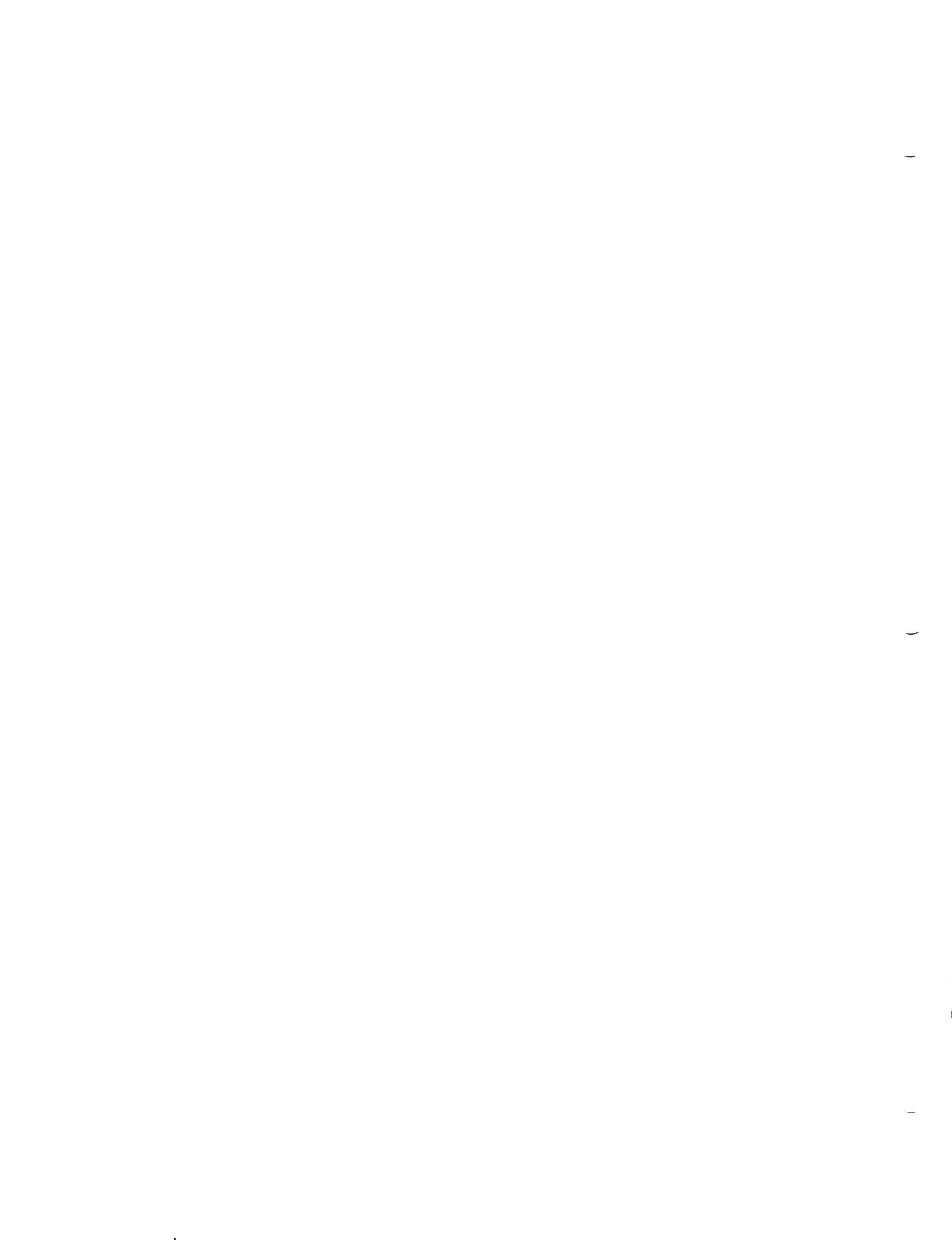
DRAWING NOT TO SCALE

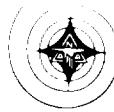


FULL-SCALE DIMENSIONS IN INCHES

ALTERNATE PAYLOAD A<sub>3</sub>

DRAWING NOT TO SCALE





Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
F	Thin shell type flap which when in the closed position completes the uniform fairing of the forward portion of the command module. Radial location is at $\phi = 0$ deg (upper centerline). Thickness of shell = 2.0 in. Nose cone vertex radius = 15.4 in. Nose cone semiangle = 33.0 deg. Height of flap at mouth = 45.74 in. Hinge point = 78.75 in. forward of the heat shield. Aftermost tips of flap = 65.5 in. aft of the apex. Length of chord between these two tips = 25.0 in.	G. D.	FS-1	7121-01112-3	Ames 577 (2 by 2) SID 62-1403
F 2	Thin shell double clam shell type (2) which when in the closed position completes the uniform fairing of the command module. Open position = 140.0 deg. Thickness of shell = 2.0 in. Command module nose cone semiangle = 33.0 deg. Flaps separate at the lower centerline. Forward and aft ends of flap are located (closed position and measured along the surface of the command module) 34.6 in. and	G. D.	FS-1	7121-01112-13 and -14	Ames 577 (2 by 2) SID 62-194



Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
F <sub>2</sub> (Cont)	69.75 in. aft of the command module apex, respectively. Radial locations are $\phi = 90$ deg and 270 deg.					
F <sub>3</sub>	Thin shell type flap which when in the closed position completes the uniform fairing of the command module. Flap is a quarter section of the apex cone of the command module. Radial location is at $\phi = 0$ deg (top centerline). Thickness of shell = 2.0 in. Command module nose cone semiangle = 33.0 deg. Forward and aft ends of flap are located (closed position and measured along the surface of the command module) 34.6 in. and 69.75 in. aft of the command module apex, respectively.	G. D.	FS-1	7121-01112-15	Ames 577 (2 by 2)	Aero 62-194 Not tested
F <sub>4</sub>	Located on the lower surface ( $\phi = 180$ deg) of the command module. Total width (measured along the surface of the command module) = 20.00 in.; length = 45.00 in.; thickness = 3.13 in. Forward edge of flap = 12.88 in. aft of module apex.	G. D.	FS-1	None	Ames 577 (2 by 2)	Aero 62-194 SID 62-1403



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No. Ames 577 (2 by 2) Aero 62-194 SID 62-1403	Pretest and Data Reports
F 5	Thin shell type flap which when in the non-extended position completes the contour of the command module. Flap is the forward portion of the nose. Nose radius = 15.4 in. Nose cone vertex semiangle = 33.0 deg. Length of flap from nose to aft end (measured along module centerline) = 21.75 in.; width = 45.40 in.; height = 22.70 in. Radical location, $\phi$ = 0 deg (upper surface). Flap is extended forward and along a line 33.0 deg to module centerline. Aft end of flap = 12.88 in. aft of module apex.	G. D.	FS-1	None		
F 6	Located on the lower surface ( $\phi$ = 180 deg) of the command module. Total length (measured along the surface of the command module) = 34.0 in.; width = 23.7 in.; thickness = 3.13 in. Aft edge of flap = 14.65 in. aft of module apex.	G. D.	FS-1	None	Ames 577 (2 by 2) Aero 62-194 SID 62-1403	

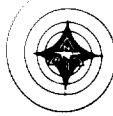


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
F <sub>7</sub>	Flap intersects module centerline 16.35 in. aft of module apex. When open, forward end of flap is above module centerline. Length of flap = 27.25 in.; width = 23.70 in.; thickness = 1.50 in. Command module vertex semiangle = 33 deg.	G. D.	FS-1	7121-01114-2	JPL 20-536	Aero 62-240 SID 62-1447
F <sub>8</sub>	Located on heat shield lower center-line, $\phi$ = 180 deg. Flap-heat shield contact points at 62.0 in. radius. Width of flap = 6.0 in.; thickness = 1.5 in.; conical-type surface whose vertex semiangle = 33 deg. Flap (frontal view) subtends an angle of 124.46 deg (radius = 65.27 in. to outside edge) whose chord length = 115.50 in. Heat shield radius = 184.8. in.	G. D.	FS-1	7121-01114-14	JPL 20-536	Aero 62-240 SID 62-1447
F <sub>9</sub>	Flat face eyelid-type flap located 120.85 in. aft of module apex on module upper centerline, $\phi$ = 0 deg. Flat face is 90 deg to opposite surface (slant height) of command module. Vertical depth of flap = 8.0 in.; length = 60.0 in. Command	G. D.	FS-1	7121-01114-15	JPL 20-536	Aero 62-240 SID 62-1447

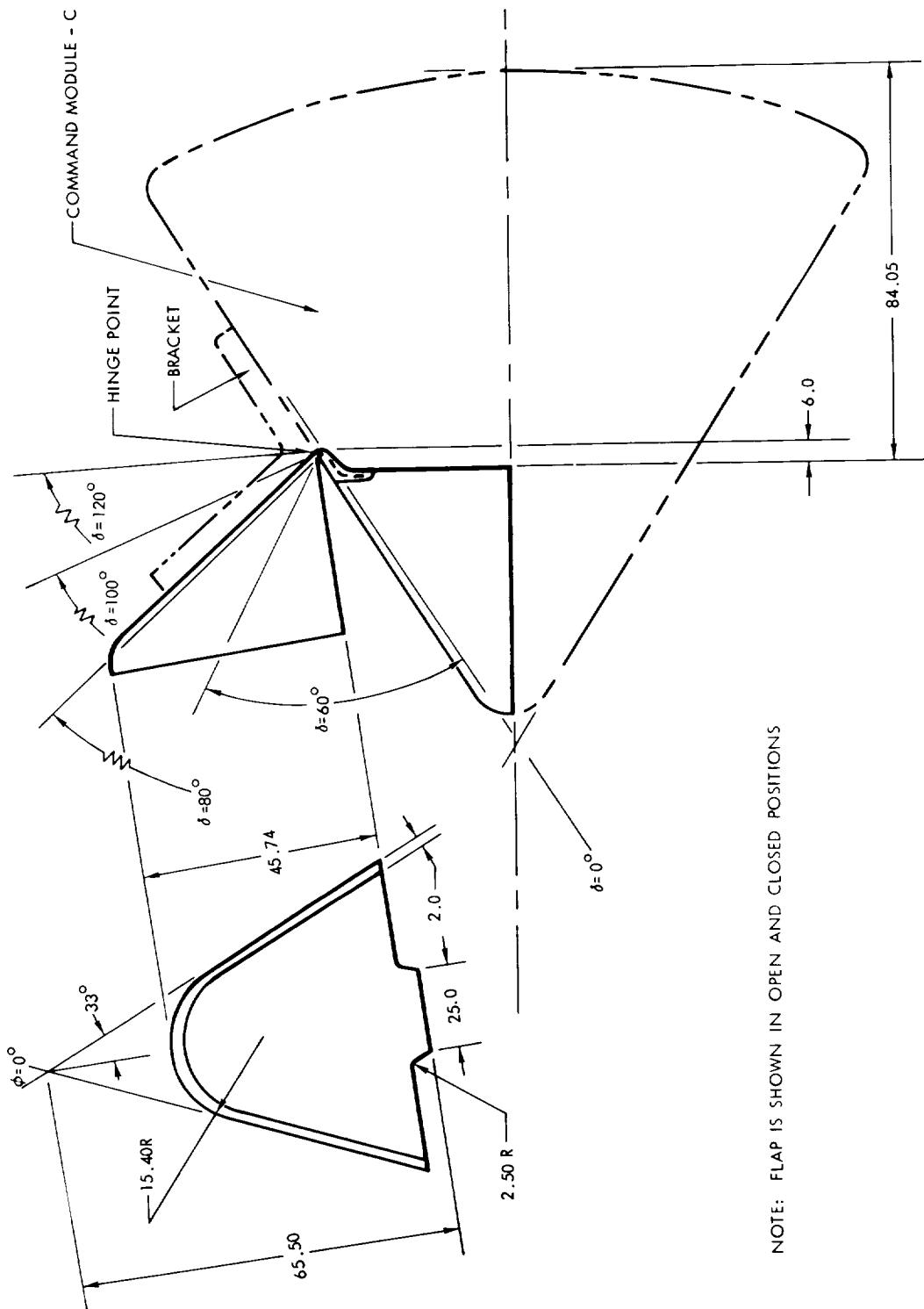
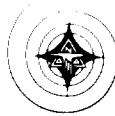


Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
F <sub>9</sub> (Cont)	module vertex semiangle = 33 deg; corner radius = 7.7 in.; heat shield radius = 184.8 in.				Pretest and Data Reports
F <sub>10</sub>	Located on heat shield lower center-line, $\phi$ = 180 deg. Flap-heat shield contact points at 58.82 in. radius. Width of flap = 6.0 in.; thickness = 0.59 in.; conical-type surface whose vertex semiangle = 33 deg. Flap (frontal view) subtends an angle of 111.38 deg (radius = 62.09 in. to outside edge) whose chord length = 115.50 in. Heat shield radius = 184.8 in.	D. C. R. H.	FS-2	None	TWT-85 None Not tested
F <sub>11</sub>	Located on heat shield lower center-line, $\phi$ = 180 deg. Flap-heat shield contact point = 58.82 in. below module centerline. Height of flap = 6.0 in. at lower centerline and tapers to 0.0 in. at horizontal centerline, $\phi$ = 90 and 270 deg; maximum width = 154.0 in.; thickness = 0.59 in. Flap is a conical type surface whose vertex semiangle = 33 deg. Heat shield radius = 184.8 in.	D. C. R. H.	FS-2	S&ID IOL Aero 62-274	TWT-85 None SID 63-84



## Apollo Wind Tunnel Model Nomenclature

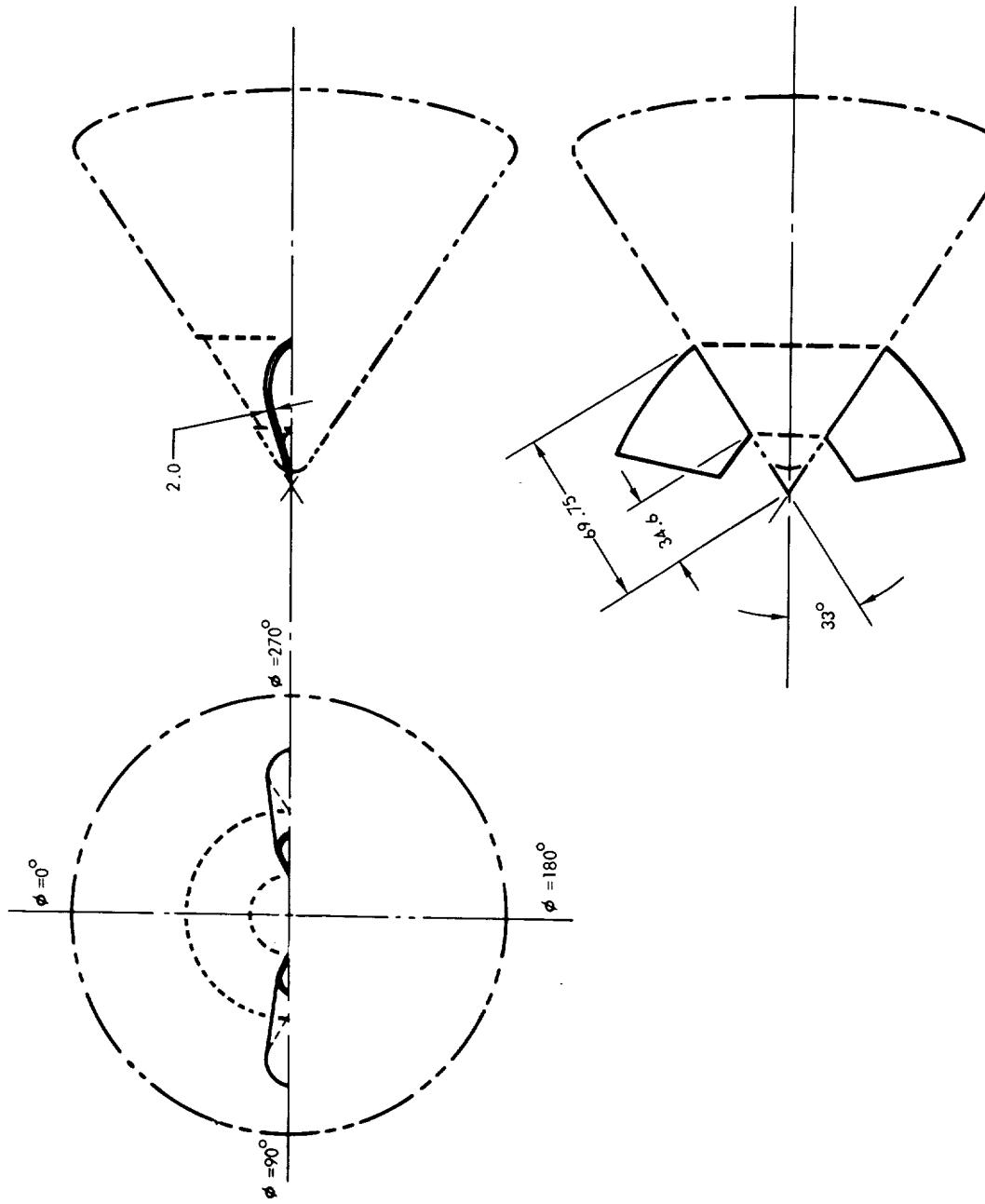
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
F <sub>12</sub>	Same as F <sub>11</sub> except height of flap = 4.0 in. at lower centerline.	D. C. R. H.	FS-2	None	TWT-85	None Not Tested
F <sub>13</sub>	Same as F <sub>11</sub> except height of flap = 2.0 in. at lower centerline.	D. C. R. H.	FS-2	None	TWT-85	None Not Tested

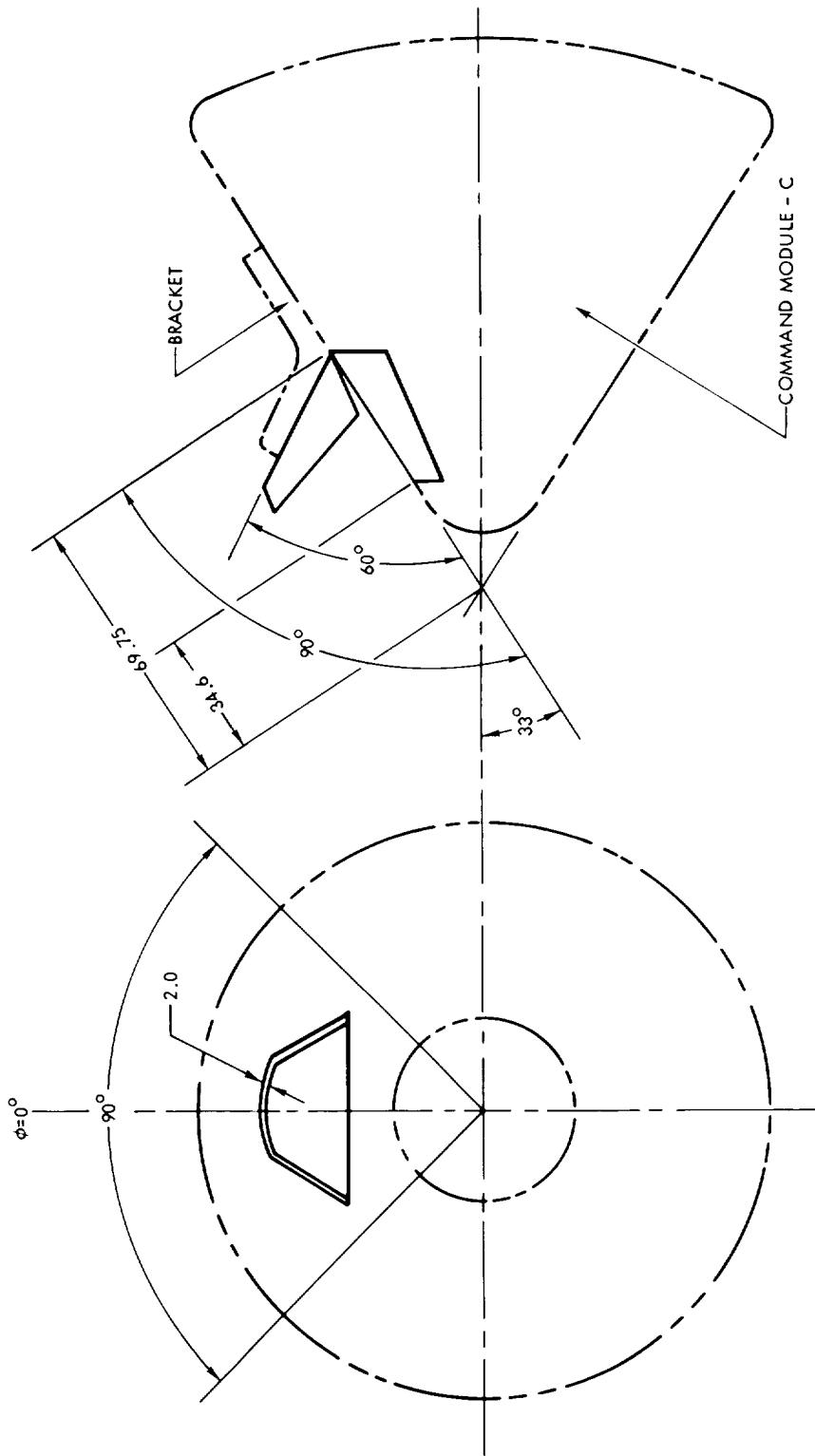
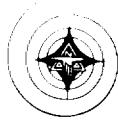


NOTE: FLAP IS SHOWN IN OPEN AND CLOSED POSITIONS

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



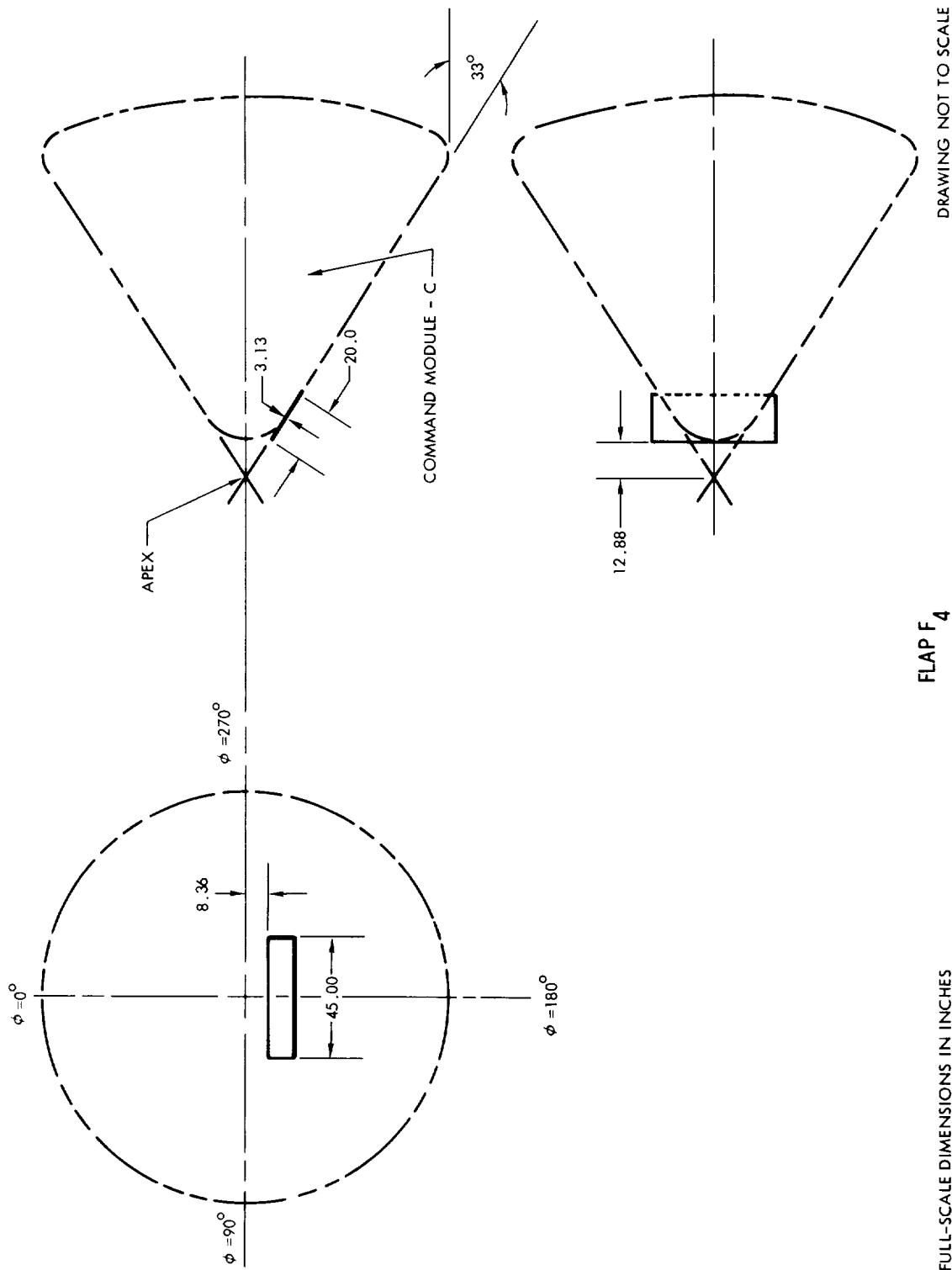


NOTE: FLAP IS SHOWN IN OPEN AND CLOSED POSITIONS

DRAWING NOT TO SCALE

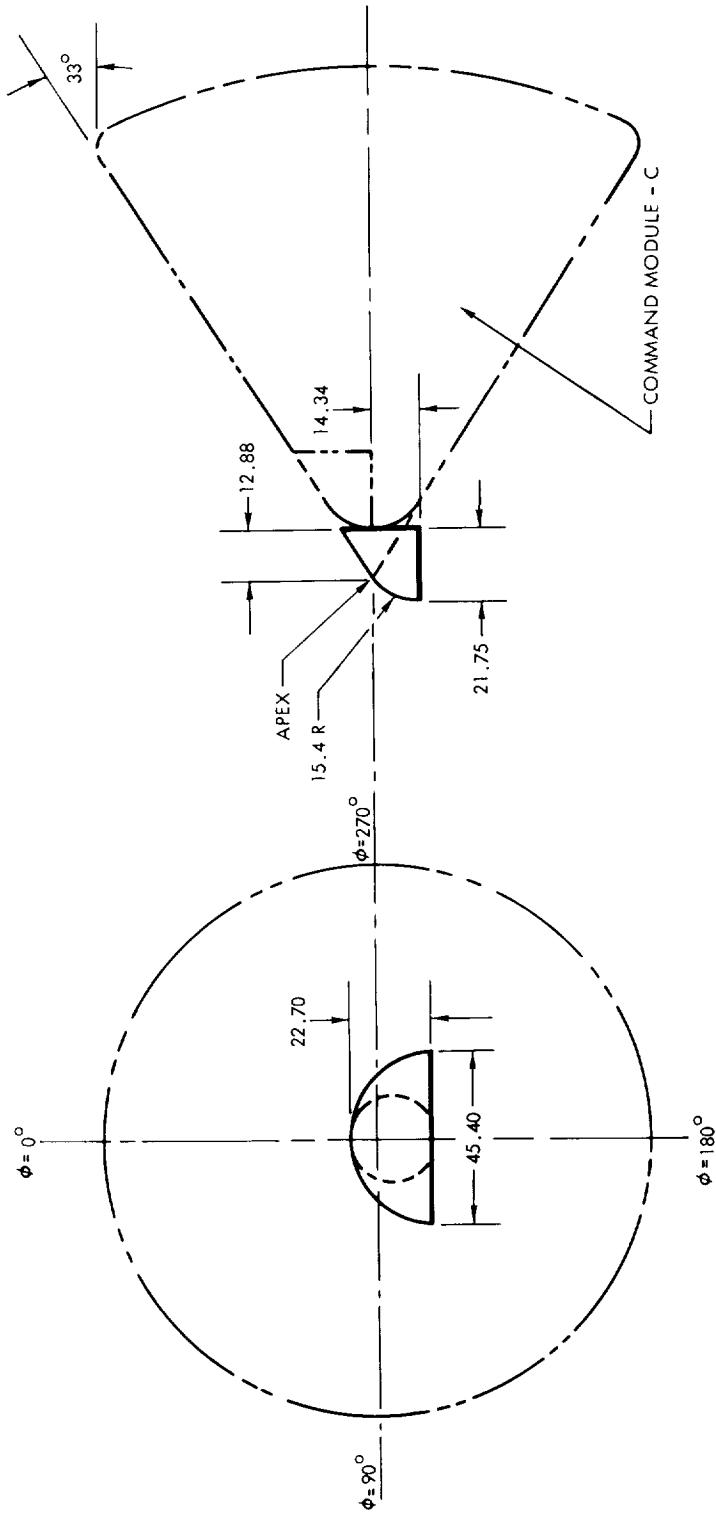
FLAP F<sub>3</sub>

FULL-SCALE DIMENSIONS IN INCHES



12-10

SID 63-44

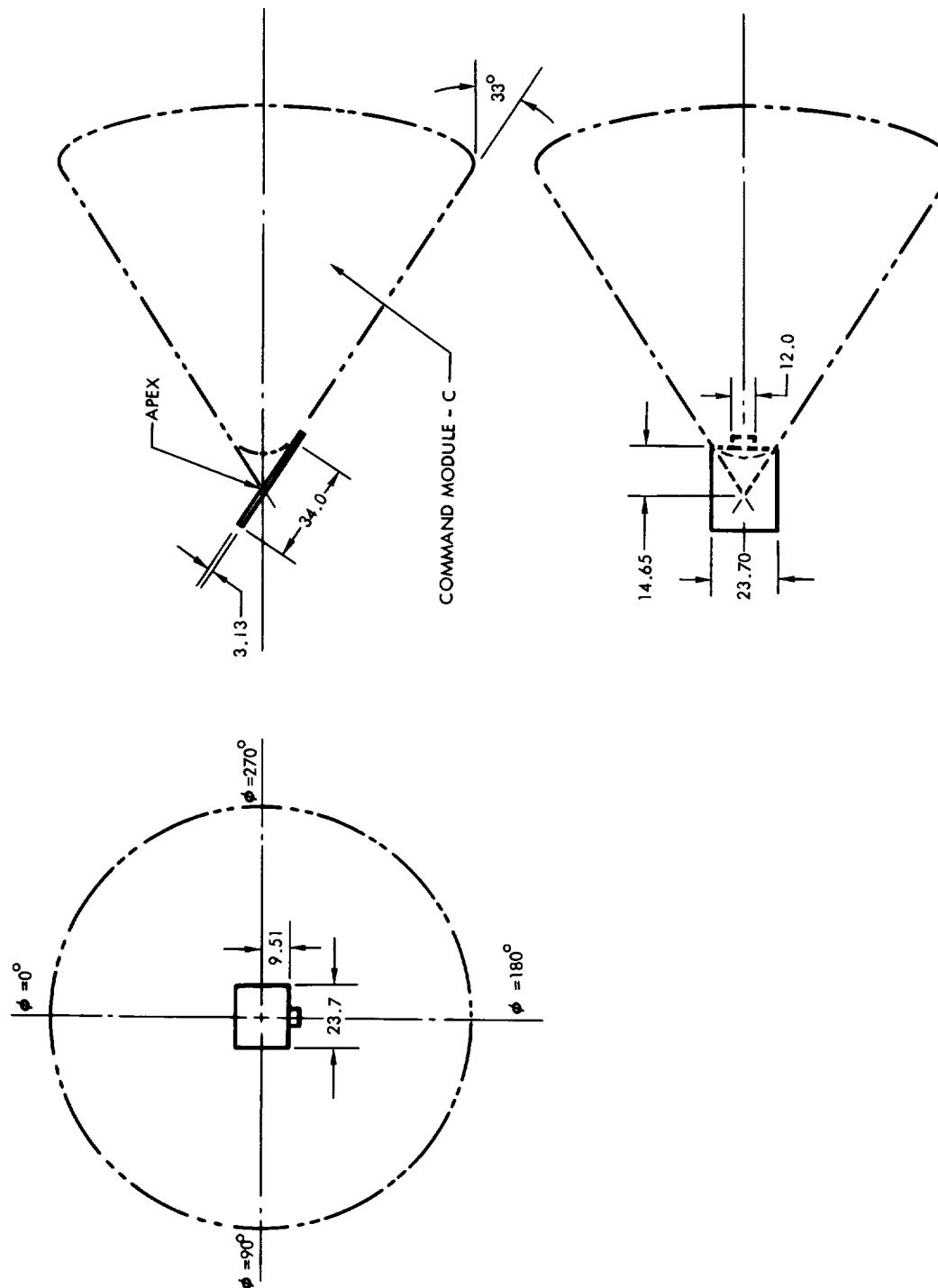


NOTE: FLAP IS SHOWN IN EXTENDED POSITION

FLAP F<sub>5</sub>

FULL-SCALE DIMENSIONS IN INCHES

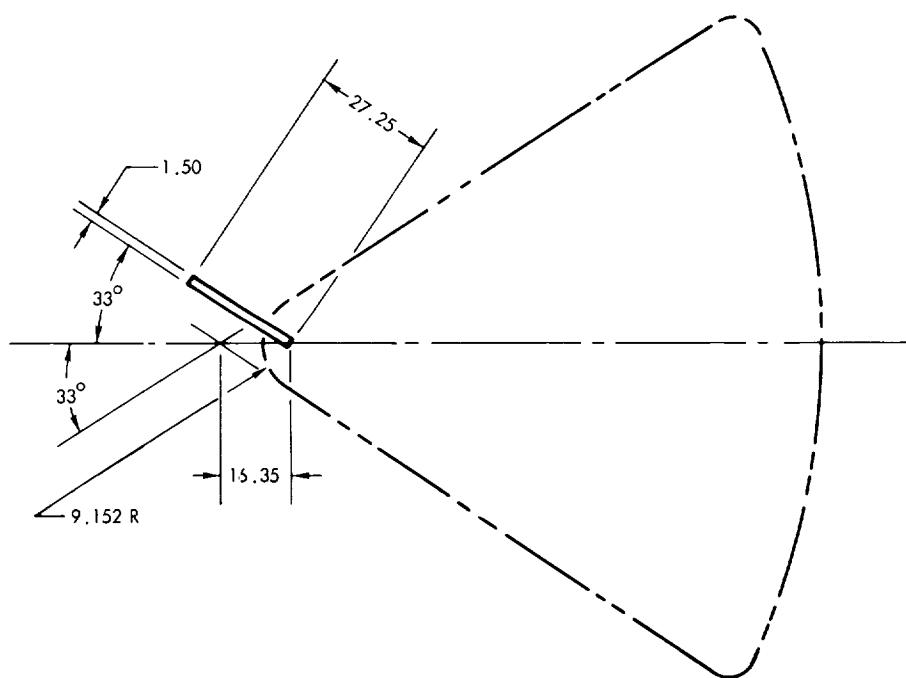
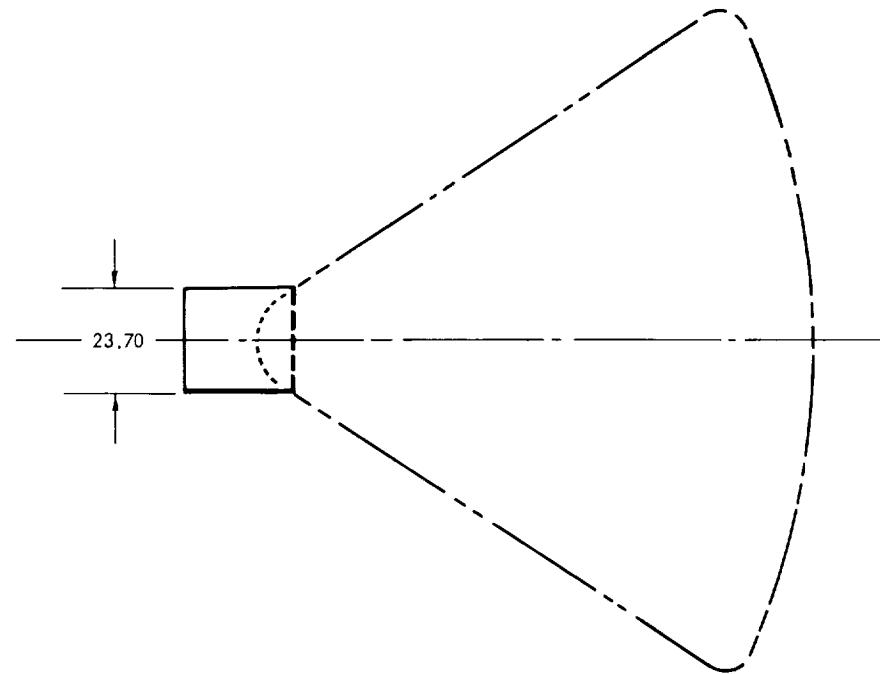
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

FLAP F<sub>6</sub>

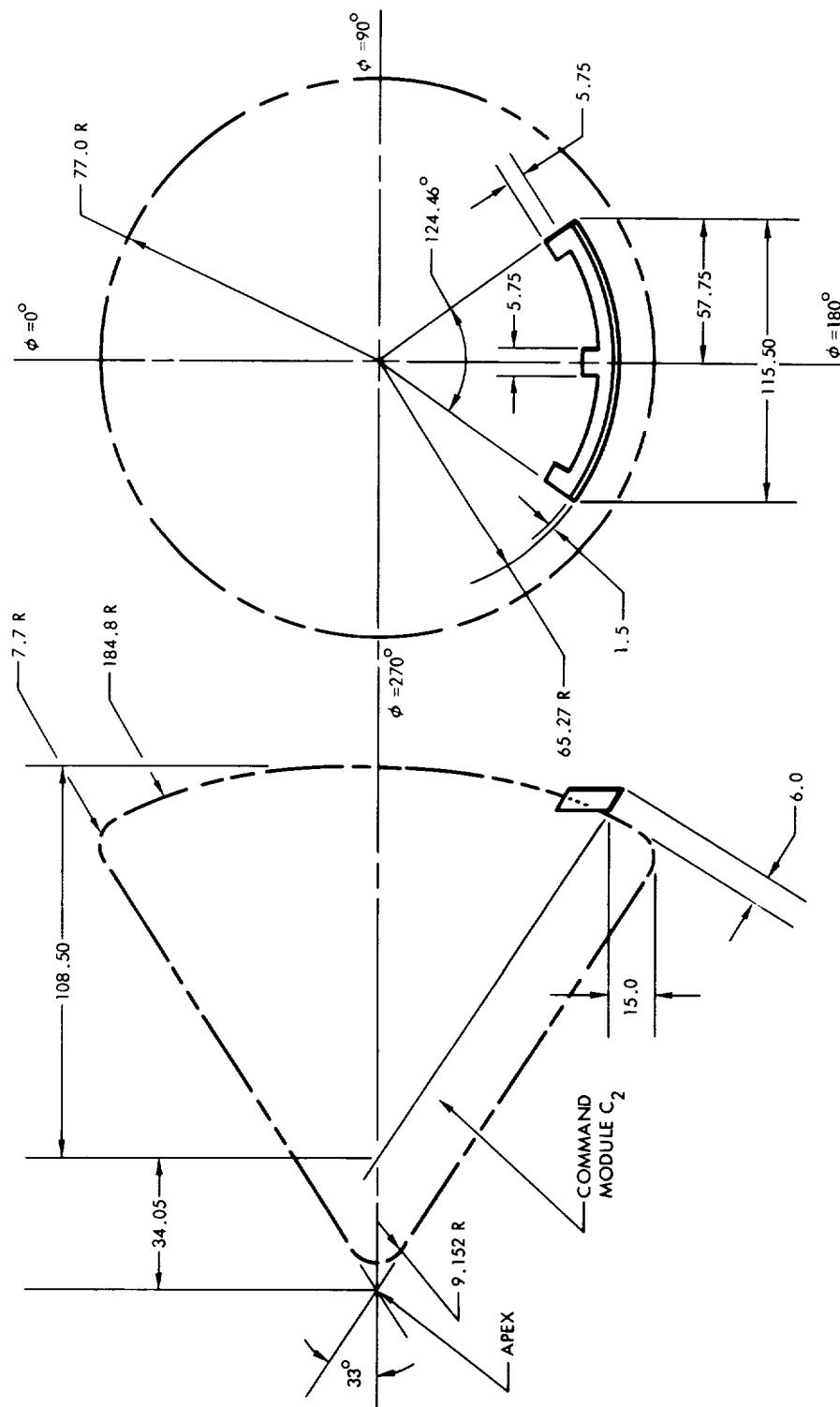
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

FLAP F<sub>7</sub>

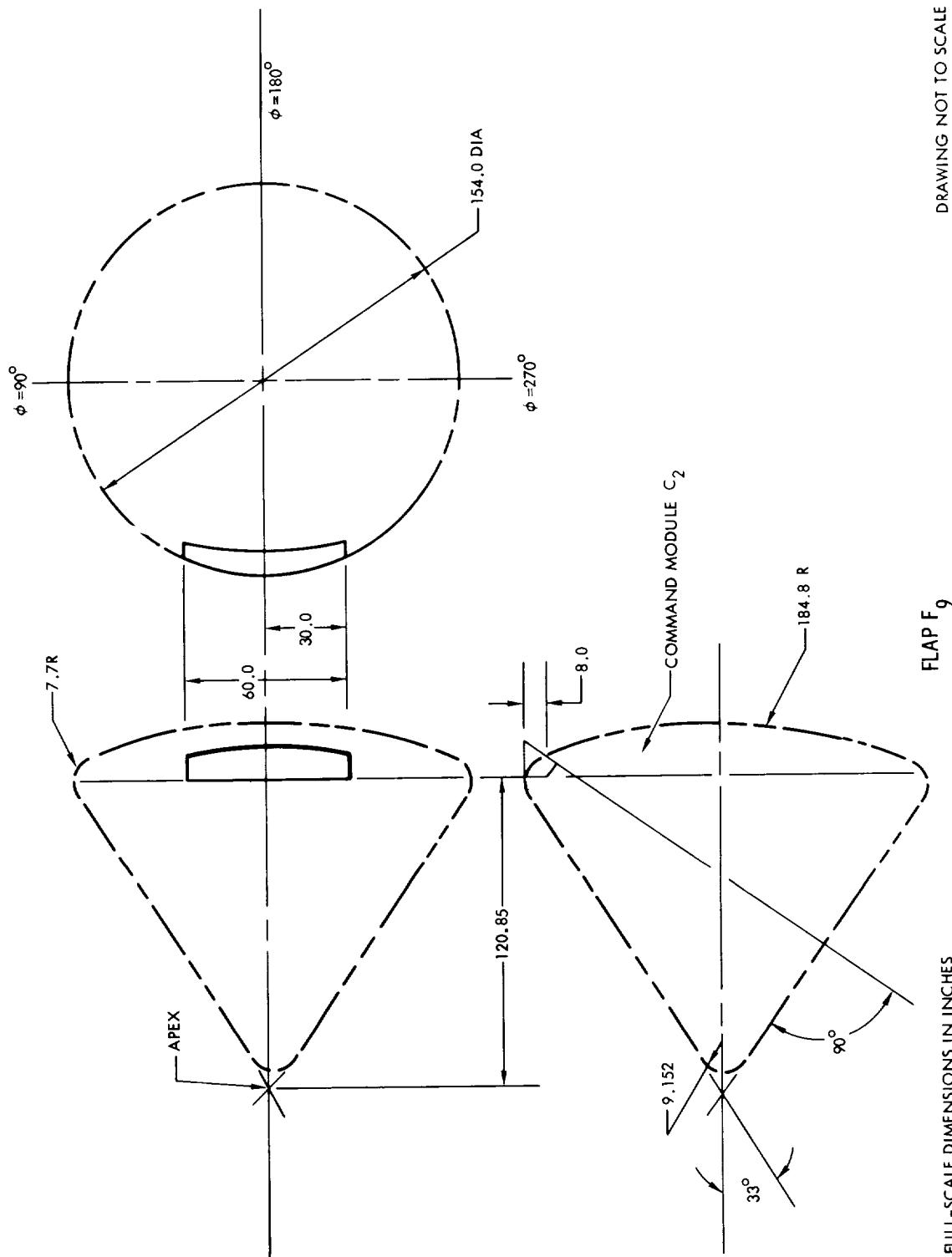
DRAWING NOT TO SCALE

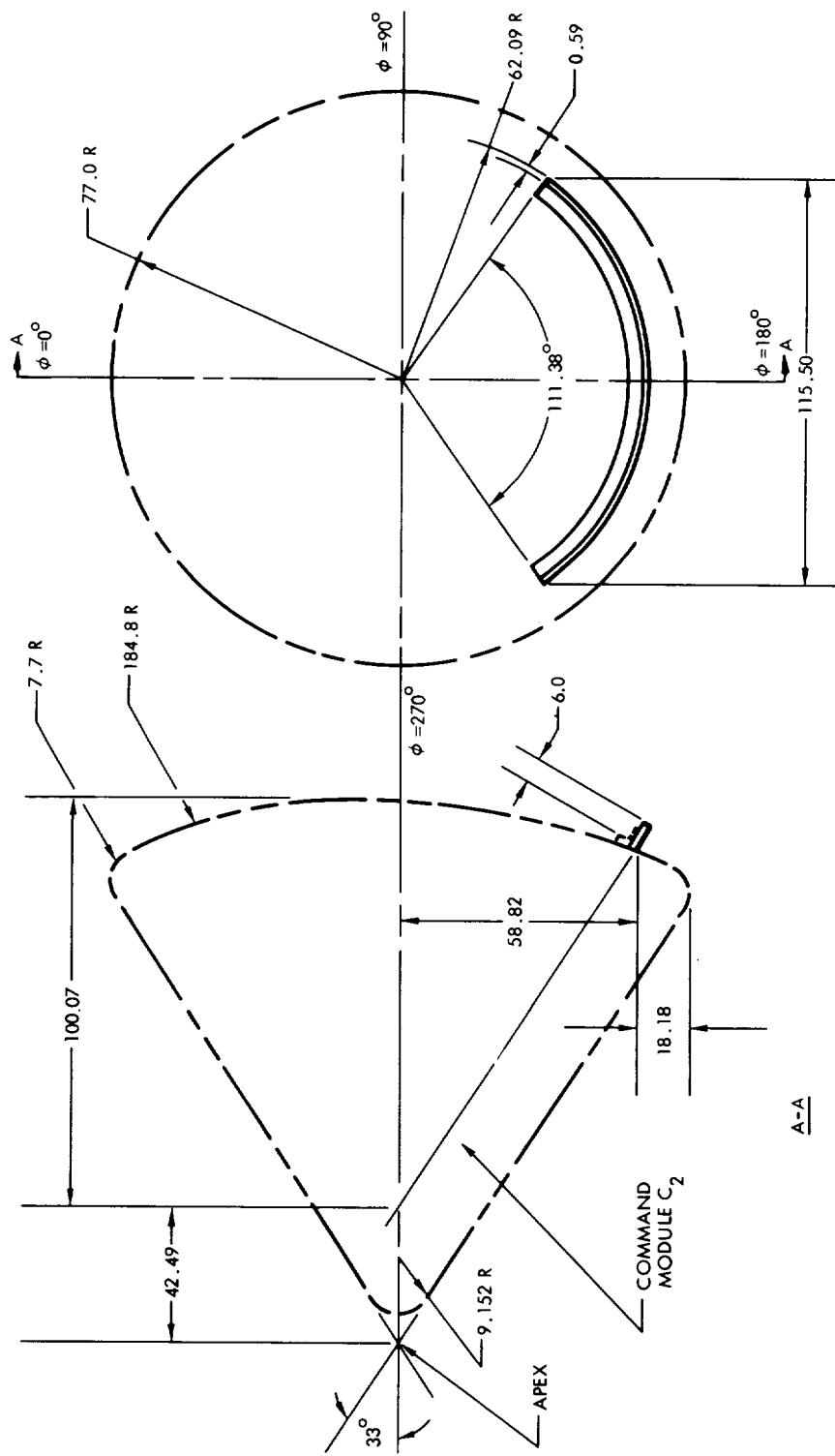


FULL-SCALE DIMENSIONS IN INCHES

FLAP F<sub>8</sub>

DRAWING NOT TO SCALE

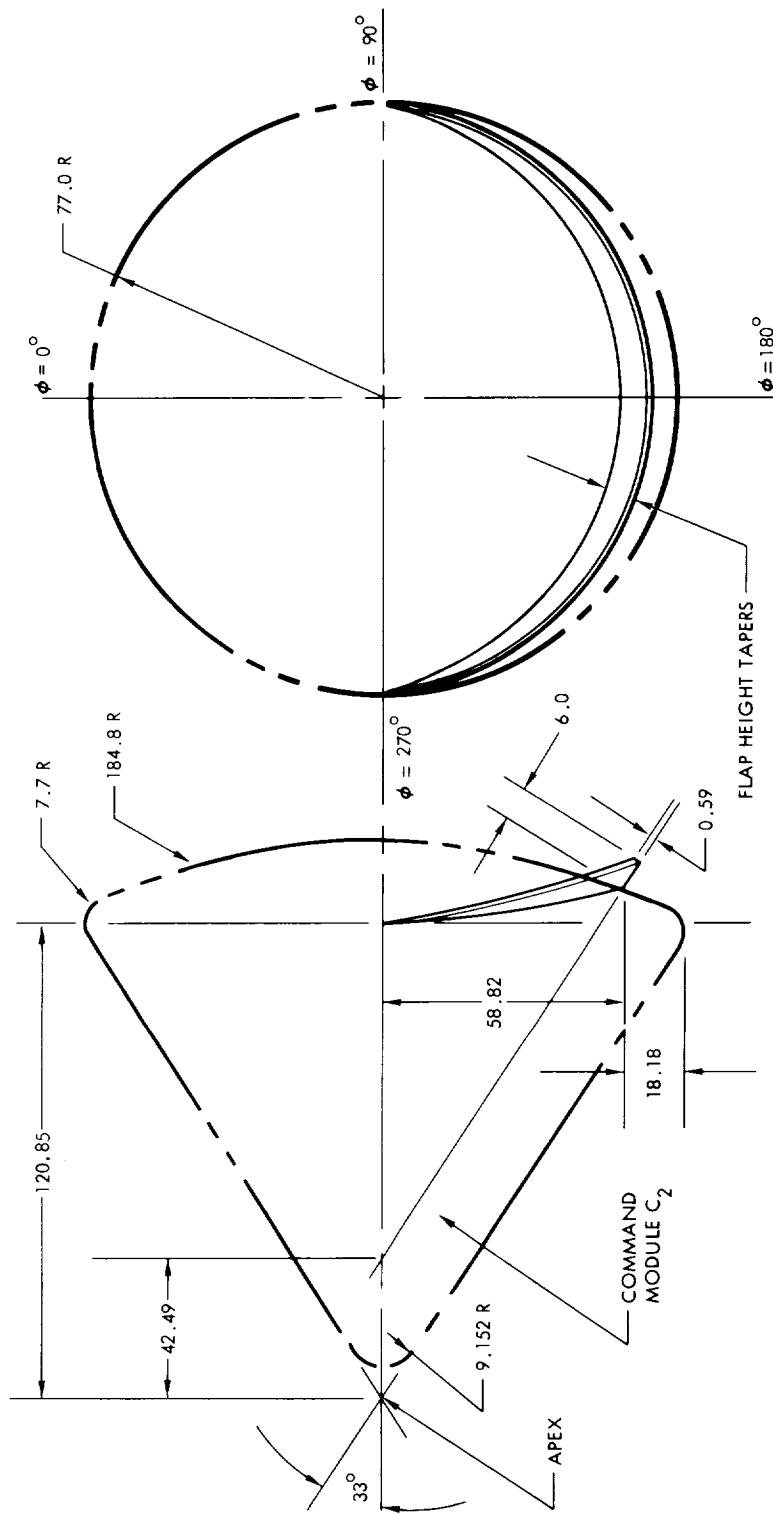




FULL-SCALE DIMENSIONS IN INCHES

FLAP F<sub>10</sub>

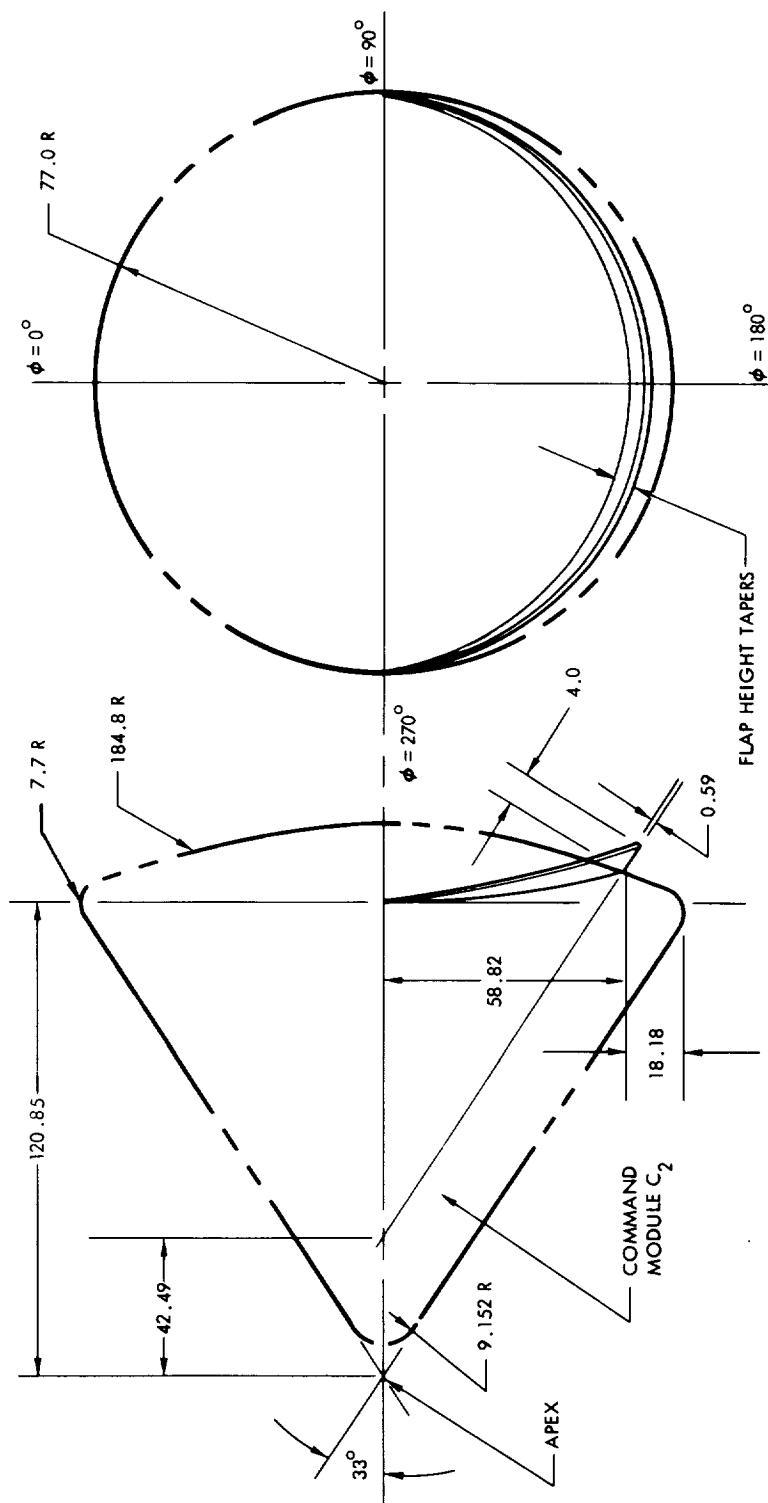
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

FIGAP F<sub>11</sub>

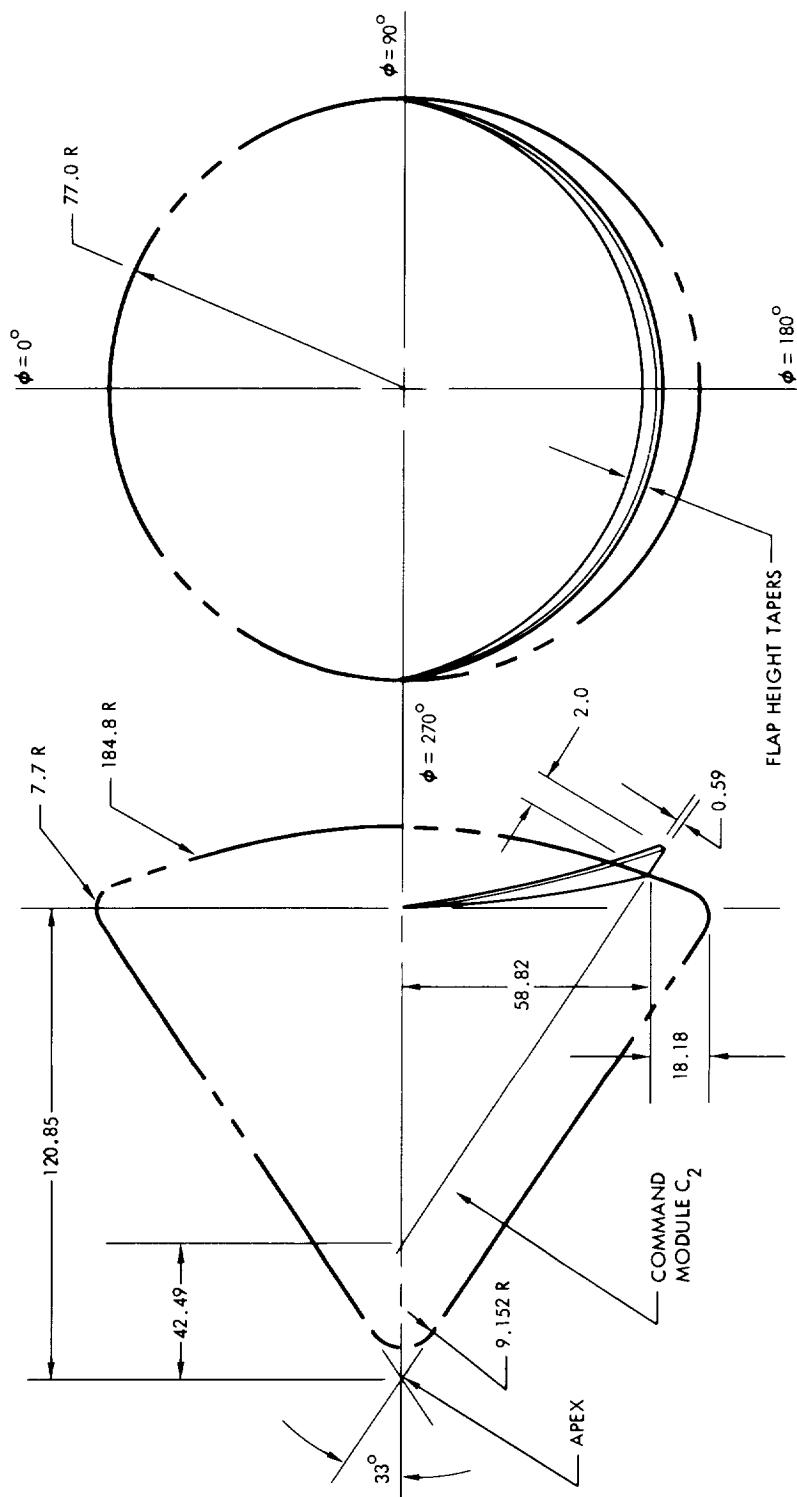
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

FLAP F<sub>12</sub>

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

FLAP F<sub>13</sub>

DRAWING NOT TO SCALE

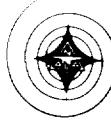




## SUMMARY OF SPOILER VARIABLES

THE JOURNAL OF CLIMATE

### **• Looking into the airstream with the wind**



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L	Two spoilers - Radial locations $\phi = 90$ and $270$ deg (yaw plane). Aft end = 116.66 in. aft of module apex. Length (measured along module surface) = 77.70 in.; width = 5.0 in.; height above command module = 6.15 in. Forward end of spoiler is tapered to a 10-deg semiangle. Command module vertex semiangle = 33 deg.	G. D.	FS-1	None	Ames 577 (2 by 2)	Aero 62-194 SID 62-1403
L <sub>2</sub>	Two spoilers - Radial locations $\phi = 90$ and $270$ deg (yaw plane). Aft end = 84.08 in. aft of module apex. Length (measured along module surface) = 77.70 in.; width = 5.0 in.; height above command module = 6.15 in. Forward end of spoiler is tapered to a 10-deg semiangle. Command module vertex semiangle = 33 deg.	G. D.	FS-1	None	Ames 577 (2 by 2)	Aero 62-194 SID 62-1403
L <sub>3</sub>	Two spoilers - Radial locations $\phi = 90$ and $270$ deg (yaw plane). Aft end = 116.66 in. aft of module apex. Length (measured along module surface) = 116.55 in.; width = 5.0 in.; height above command module	G. D.	FS-1	None	Ames 577 (2 by 2)	Aero 62-194 SID 62-1403



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>3</sub> (Cont)	= 6.15 in. Forward end of spoiler is tapered to a 10-deg semiangle. Command module vertex semiangle = 33 deg.					
L <sub>4</sub>	Two spoilers - Each spoiler (measured along the surface of the command module) extends from tangent point of corner radius and slant height (116.66 in. aft of module apex) to forward tip of nose. Nose radius = 15.4 in.; nose cone vertex semiangle = 33 deg. Spoilers are located in the yaw plane ( $\phi$ = 90 and 270 deg). Width = 5.0 in.; height above command module = 6.15 in.	G. D.	FS-1	None	Ames 577 (2 by 2) Aero 62-194 SID 62-1403	
L <sub>5</sub>	Six spoilers - Radial locations: $\phi$ = 30, 90, 150, 210, 270, and 330 deg.  $\phi$ = 90 and 270 deg (yaw plane); same as L <sub>4</sub> .  $\phi$ = 30, 150, 210, and 330 deg; location of forward and aft ends = 18.91 in. and 84.07 in. aft of module apex respectively.	G. D.	FS-1	None	Ames 577 (2 by 2) Aero 62-194 SID 62-1403	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>5</sub> (Cont)	Length = 77.7 in.; width = 5.0 in.; height above command module = 6.15 in. Forward end of spoiler is tapered to 10-deg semiangle.					
L <sub>6</sub>	Six spoilers - Radial locations: $\phi$ = 30, 90, 150, 210, 270, and 330 deg.  <u><math>\phi</math> = 90 and 270 deg (yaw plane):</u> same as L <sub>4</sub> .	G. D.	FS-1	None	Ames 577 (2 by 2)	Aero 62-194 SID 62-1403
L <sub>7</sub>	Two spoilers - Each spoiler (measured along the surface of the command module) extends from tangent point of corner radius and slant height (116.66 in. aft of module apex) to forward tip of nose. Nose radius = 9.152 in.; nose cone	G. D.	FS-1	7121-01114-6 and -9	JPL 20-536	Aero 62-240 SID 62-1447



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
L <sub>7</sub> (Cont)	<p>vertex semiangle = 33 deg. Spoilers are located in the yaw plane (<math>\phi = 90</math> and 270 deg). Width = 5.0 in.; height = 6.0 in.</p> <p>(Same as L<sub>4</sub> except height = 6.0 in. and used with command module C<sub>2</sub> instead of C.)</p>				Pretest and Data Reports
L <sub>8</sub>	<p>Two spoilers - Each spoiler (measured along the surface of the command module) extends from tangent point of corner radius and slant height (116.66 in. aft of module apex) to forward tip of nose. Nose radius = 9.152 in.; nose cone vertex semiangle = 33 deg. Spoilers are located in the yaw plane (<math>\phi = 90</math> and 270 deg). Width = 5.0 in.; height = 4.0 in.</p> <p>(Same as L<sub>4</sub> except height = 4.0 in. and used with command module C<sub>2</sub> instead of C.)</p>	G. D.	FS-1 and -10	7121-01114-7 536	Aero 62-240 SID 62-1447



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>9</sub>	<p>Two spoilers - Each spoiler (measured along the surface of the command module) extends from tangent point of corner radius and slant height (116.66 in. aft of module apex) to forward tip of nose. Nose radius = 9.152 in.; nose cone vertex semiangle = 33 deg. Spoilers are located in the yaw plane (<math>\phi = 90</math> and 270 deg). Width = 5.0 in.; height = 2.0 in.</p> <p>(Same as L<sub>4</sub> except height = 2.0 in. and used with command module C<sub>2</sub> instead of C.)</p>	G. D.	FS-1	7121-01114-8 and -11	JPL 20- 536	Aero 62-240 SID 62-1447
L <sub>10</sub>	<p>Two tapered spoilers - Radial locations, <math>\phi = 90</math> and 270 deg (yaw plane). Aft end = 97.85 in. aft of module apex. Length (measured along module surface) = 82.09 in. Width = 5.0 in.; maximum height (29.0 in. aft of module apex) = 4.0 in.; minimum height (97.85 in. aft of module apex) = 0.858 in. Module vertex semiangle = 33 deg.</p>	G. D.	FS-1	7121-01114-13	JPL 20- 536	Aero 62-240 Not tested



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L11	Two tapered spoilers - Radial locations, $\phi = 90$ and $270$ deg (yaw plane). Aft end = $97.85$ in. aft of module apex. Length (measured along module surface) = $82.09$ in. Width = $5.0$ in.; maximum height ( $29.0$ in. aft of module apex) = $6.0$ in.; minimum height ( $97.85$ in. aft of module apex) = $1.29$ in. Module vertex semiangle = $33$ deg.	G. D.	FS-1	7121-01114-12	JPL 20-536	Aero 62-240 SID 62-1447
L12	Two partially tapered spoilers - Radial locations, $\phi = 90$ and $270$ deg (yaw plane). Width = $5.0$ in. Each spoiler, measured along the surface of the command module, tapers from a height of $0.858$ in. at aft end ( $97.85$ in. aft of module apex) to a height of $4.0$ in. ( $29.0$ in. aft of module apex) and then remains constant to forward tip of nose. Nose radius = $9.152$ in.; nose cone vertex semiangle = $33$ deg.	G. D.	FS-1	7121-01114-7 and -13	JPL 20-536	Aero 62-240 Not tested



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
L13	Two partially tapered spoilers - Radial locations, $\phi = 90$ and $270$ deg (yaw plane). Width = 5.0 in. Each spoiler, measured along the surface of the command module, tapers from a height of 1.29 in. at aft end (97.85 in. aft of module apex) to a height of 6.0 in. (29.0 in. aft of module apex) and then remains constant to forward tip of nose. Nose radius = 9.152 in.; nose cone vertex semiangle = 33 deg.	G. D.	FS-1	7121-01114-6 and -12	JPL 20- 536
L14	Two spoilers - Each spoiler (measured along the surface of the command module) extends from tangent point of corner radius and slant height (116.66 in. aft of module apex) to forward tip of nose. Nose radius = 9.142 in.; nose cone vertex semiangle = 33 deg. Spoilers are located in the yaw plane ( $\phi = 90$ and $270$ deg). Width = 2.86 in.; height above command module = 2.0 in.	D. C. R. H.	FS-2	S&ID IOL Aero 62-274	TWT-85  None SID 63-84



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L15	Two spoilers - Each spoiler (measured along the surface of the command module) extends from tangent point of corner radius and slant height (116.66 in. aft of module apex) to forward tip of nose. Nose radius = 9.142 in.; nose cone vertex semiangle = 33 deg. Spoilers are located in the yaw plane ( $\phi = 90$ and 270 deg.). Width = 2.86 in.; height above command module = 4.0 in. There is a cutout due to tower obstruction. Cutout angle = 14 deg to module centerline. Aft end of cutout = 31.38 in. aft of module apex. Cutout angle vertex = 31.38 in. aft of module apex and 22.40 in. from module centerline.	D. C. R. H.	FS-2	S&ID IOL Aero 62-274	TWT-85	None SID 63-84
L16	Two spoilers - Each spoiler (measured along the surface of the command module) extends from tangent point of corner radius and slant height (116.66 in. aft of module apex) to forward tip of nose. Nose radius = 9.142 in.; nose cone vertex semiangle = 33 deg. Spoilers are located in the yaw plane ( $\phi = 90$	D. C. R. H.	FS-2	S&ID IOL Aero 62-274	TWT-85	None SID 63-84



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>16</sub> (Cont)	and 270 deg). Width = 2.86 in.; height above command module = 6.0 in. There is a cutout due to tower obstruction. Cutout angle = 14 deg to module centerline. Aft end of cutout = 31.38 in. aft of module apex. Cutout angle vertex = 31.38 in. aft of module apex and 22.40 in. from module centerline.					
L <sub>17</sub>	Two partially tapered spoilers - Same as L <sub>16</sub> except spoiler tapers from a height of 0.30 in. above command module (116.66 in. aft of module apex) to a height of 6.0 in. (31.38 in. aft of module apex) and then remains constant with the exception of the cutout.	D. C. R. H.	FS-2 Aero 62-274	S&ID IOL Aero 62-274	TWT-85	None SID 63-84
L <sub>18</sub>	Two tapered spoilers - Radial location, $\phi$ = 90 and 270 deg (yaw plane). Aft end = 116.66 in. aft of module apex. Length (measured along module surface) = 101.69 in. Width = 2.86 in.; maximum height = 6.0 in.; minimum height (116.66 in. aft of module apex) = 0.30 in. Module vertex semiangle = 33 deg.	D. C. R. H.	FS-2 Aero 62-274	S&ID IOL Aero 62-274	TWT-85	None SID 63-84



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L19	Two spoilers - Same as L16 except section from 31.38 in. aft of module apex to nose is removed; no cutout. Length of spoiler = 101.69 in. Aft end = 116.66 in. aft of module apex.	D. C. R. H.	FS-2	S&ID IOL Aero 62-274	TWT-85	None SID 63-84
L20	Two spoilers - Radial locations, $\phi = 90$ and $270$ deg (yaw plane). Aft end is located 116.66 in. aft of module apex. Total length (measured along the surface of the command module) = 102.38 in. Total length is arranged from forward end to aft end as follows: first 79.37 in. at a constant height of 6.00 in.; last 23.01 in. at a constant height of 2.00 in. Width = 2.86 in. Module vertex semiangle = 33 deg.	D. C. R. H.	FS-2	S&ID IOL Aero 62-269	TWT-85	None SID 63-84
L21	Two spoilers - Same as L20 except total length (102.38 in.) is arranged from forward end to aft end as follows: first length (26.46 in.) at a constant height of 14.00 in.; second length (52.91 in.) at a constant height of 6.00 in.; last length (23.01 in.) at a constant height of 2.00 in.	D. C. R. H.	FS-2	S&ID IOL Aero 62-269	TWT-85	None SID 63-84



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>22</sub>	Two spoilers - Same as L <sub>20</sub> except total length (102.38 in.) is arranged from forward end to aft end as follows: first length (24.46 in.) at a constant height of 6.00 in.; second length (26.45 in.) at a constant height of 14.00 in.; third length (26.46 in.) at a constant height of 6.00 in.; last length (23.01 in.) at a constant height of 2.00 in.	D. C. R. H.	FS-2	S&ID IOL Aero 62-269	TWT-85	None SID 63-84
L <sub>23</sub>	Two spoilers - Same as L <sub>20</sub> except total length (102.38 in.) is arranged from forward end to aft end as follows: first length (52.91 in.) at a constant height of 6.00 in.; second length (26.46 in.) at a constant height of 14.00 in.; last length (23.01 in.) at a constant height of 2.00 in.	D. C. R. H.	FS-2	S&ID IOL Aero 62-269	TWT-85	None SID 63-84
L <sub>24</sub>	Two spoilers - Same as L <sub>20</sub> except aft end is located 97.36 in. aft of module apex, total length = 79.37 in., and height = 6.00 in.	D. C. R. H.	FS-2	S&ID IOL Aero 62-269	TWT-85	None Not tested



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>25</sub>	Two spoilers - Same as L <sub>20</sub> except total length (102.38 in.) is arranged from forward end to aft end as follows: first length (26.46 in.) at a constant height of 10.00 in.; second length (52.91 in.) at a constant height of 6.00 in.; last length (23.01 in.) at a constant height of 2.00 in.	D. C. R. H.	FS-2	S&ID IOL Aero 62-269	TWT-85	None Not tested
L <sub>26</sub>	Two spoilers - Same as L <sub>20</sub> except total length (102.38 in.) is arranged from forward end to aft end as follows: first length (26.46 in.) at a constant height of 6.00 in.; second length (26.45 in.) at a constant height of 10.00 in.; third length (26.46 in.) at a constant height of 6.00 in.; last length (23.01 in.) at a constant height of 2.00 in.	D. C. R. H.	FS-2	S&ID IOL Aero 62-269	TWT-85	None Not tested
L <sub>27</sub>	Two spoilers - Same as L <sub>20</sub> except total length (102.38 in.) is arranged from forward end to aft end as follows: first length (52.91 in.) at a constant height of 6.00 in.; second	D. C. R. H.	FS-2	S&ID IOL Aero 62-269	TWT-85	None Not tested



Apollo Wind Tunnel Model Nomenclature							
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports	
L <sub>27</sub> (Cont)	length (26.46 in.) at a constant height of 10.00 in.; last length (23.01 in.) at a constant height of 2.00 in.						
L <sub>28</sub>	Two tapered spoilers - Radial locations, $\phi = 90$ and 270 deg (yaw plane). Forward end = 29.27 in. aft of module apex. Length (measured along module surface) = 95.36 in. Width = 1.49 in. Spoiler tapers from forward end (29.27 in. aft of module apex; maximum height above module = 12.0 in. at intersection of forward end and back of spoiler) to 94.76 in. aft of module apex and then changes taper so that at a distance of 109.24 in. aft of module apex, height of spoiler = 0.0 in. Forward face and back of spoiler are joined by an arc of 6.00 in. radius. Module vertex semiangle = 33 deg.	D. C. R. H.	ES-2	7121-01091	Ames 001(11 by 11) 001(9 by 7) 001(8 by 7)	SID 63-28 SID 63-448	
C. B.	*FS-3	J. D.	*FS-3	7121-01093-12	AEDC Tunnel A VT-1244-A A00 AEDC Tunnel C VT-1244-C C00	SID 62-1011 SID 63-683 SID 62-1011 SID 63-683 SID 62-1011 SID 63-683 SID 62-709	
A. G.	FD-5			7121-01121-14	AEDC Tunnel A VT-1244-A A00	SID 63-902 SID 63-316	
						SID 64-1015	
						Langley 191(16 by 16)	SID 62-876 SID 63-754



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L28 (Cont)	**PS-3 - Same as FS-3	J. S.	**PS-3	7121-01169-16	AEDC Tunnel A VT-1244- A00	S&ID IOL 223-140-63- 22 SID 63-650
					AEDC Tunnel C VT-1244- C00	S&ID IOL 223-140-63- 22 SID 63-650
G. U.	HL-1B	7121-01268-3	AEDC Tunnel C VT-1244- -C00	S&ID IOL 223-140-63- 023 SID 63-1135		
G. U.	H-2	7121-01268-3	AEDC Tunnel C VT-1244- -C00	S&ID IOL 223-140-63- 023 SID 63-1135		
J. M.	FSJ-3	7121-01144-7 and -19	AEDC Tunnel A VT-1244- A00	SID 63-352 Not tested		
C. B. C. M.	FD-5	7121-01121-14 and -15	Ames 024 (11 by 11)	SID 63-472		



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L29	Two tapered spoilers - Radial locations, $\phi = 90$ and $270$ deg (yaw plane). Forward end is located 29.25 in. aft of the module apex. Length (measured along module surface) = 81.08 in. The spoiler is not symmetrical about its longitudinal centerline and its width is variable. The back of the spoiler consists of a five faceted surface with the changes in taper occurring 29.25 in., 50.54 in., 60.25 in., 77.70 in., and 84.75 in. aft of the module apex. Forward face and back of spoiler are joined by an arc of 6.00 in. radius; aft end of the last faceted surface is an arc of 6.00 in. radius. The center facet is 1.78 in. above the first and last facets. Maximum height above command module (29.25 in. aft of module apex) = 12.00 in. at intersection of forward face and first tapered facet. Module vertex semiangle = 33 deg.	R. H.	FS-2	7121-01092-8	None	SID 63-608 Not tested
L30	Two tapered spoilers - Radial locations, $\phi = 90$ and $270$ deg (yaw plane). Forward end is located	W. B. D. E.	H-4 and PS-5	Cornell H18-1113-2	Cornell H18-1113-2	SID IOL 223-140-63-045

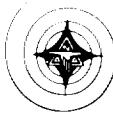


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L30 (Cont)	<p>29. 26 in. aft of the module apex. Length (measured along module surface) = 81. 08 in. The spoiler is not symmetrical about its longitudinal centerline and its width is variable. The back of the spoiler consists of a five faceted surface with the changes in taper occurring 29. 26, 50. 56, 60. 26, 76. 76, and 84. 76 in. aft of the module apex. Forward face and back of spoiler are joined by an arc of 6. 00 in. radius; aft end of the last faceted surface is an arc of 6. 00 in. radius. The center facet is 1. 66 in. above the first and last facets. Maximum height above command module (29. 26 in. aft of module apex) = 12. 24 in. at intersection of forward face and first tapered facet. Module vertex semiangle = 33 deg.</p>			109-003		CAL-AA-1805-Y-1
L31	<p>Two tapered spoilers - Radial locations, <math>\phi = 90</math> and <math>270</math> deg (yaw plane). Forward end is located 29. 24 in. aft of the module apex. Length (measured along module surface) = 81. 08 in. Width = 1. 51 in. The back of the spoiler consists of a</p>	J. S.	PS-3	7121-01169-17	LTPT 275 (8 by 8)	SID 63-457

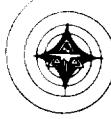


Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>31</sub> (Cont)	five faceted surface with the changes in taper occurring 29.24, 50.53 in., 60.22 in., 76.76 in., and 84.76 in. aft of the module apex. Forward face and back of spoiler are joined by an arc of 6.00 in. radius; aft end of the last faceted surface is an arc of 6.00 in. radius. The center facet is 1.78 in. above the first and last facets. Maximum height above command module (29.24 in. aft of module apex) = 12.00 in. at intersection of forward face and first tapered facet. Module vertex semiangle = 33 deg.					
L <sub>32</sub>	Two tapered spoilers - Radial locations, $\phi = 90$ and $270$ deg (yaw plane). Forward end is located 29.24 in. aft of the module apex. Length (measured along module surface) = 81.08 in. Maximum width = 2.98 in.; minimum width = 0.70 in. Facets adjacent to back of spoiler are not symmetrical. The back of the spoiler consists of a five faceted surface with the changes in taper occurring 29.24 in., 50.54 in.,	C. B. C. M.	FD-5 and -8	7121-01096-7	Ames 024 (11 by 11)	SID 63-472



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>32</sub> (Cont)	60.24 in., 76.74 in., and 84.74 in. aft of the module apex. Forward face and back of spoiler are joined by an arc of 6.00 in. radius; aft end of the last faceted surface is an arc of 6.00 in. radius. The center facet is 1.78 in. above the first and last facets. Maximum height above command module (29.24 in. aft of module apex) = 12.00 in. at intersection of forward face and first tapered facet. Upper and lower surfaces at the maximum thickness are 1.10 in. and 1.88 in., respectively, from the spoiler longitudinal centerline; at minimum thickness the upper and lower surfaces are symmetrical about the centerline. Module vertex semiangle = 33 deg.					
L <sub>33</sub>	Two tapered spoilers - Same as L <sub>32</sub> except the back of the spoiler consists of a five faceted surface with the changes in taper occurring 29.25, 54.20, 60.25, 76.76, and 85.15 in. aft of the module apex; the center facet is 1.65 in. above the first and last facets; and maximum	J. S. P. B.	PSTL -2	7121-01190-11	None	Not Tested



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
L <sub>33</sub> (Cont)	height above command module (29.25 in. aft of module apex) = 12.23 in. at intersection of forward face and first tapered facet.				
L <sub>34</sub>	Two tapered spoilers - Radial locations, $\phi$ = 90 and 270 deg (yaw plane). Forward end is located 29.26 in. aft of the module apex. Length (measured along module sur- face) = 81.08 in. Maximum width = 3.22 in.; minimum width = 1.56 in. The back of the spoiler consists of a double faceted surface with the changes in taper occurring 29.26 and 68.44 in. aft of the module apex. Forward face and back of spoiler are joined by an arc of 6.00 in. radius; aft end of the last faceted surface is an arc of 10.00 in. radius. The upper and lower surfaces are not similar to each other nor symmet- rical about the spoiler centerline. The upper surface is single faceted and 1.22 in. from the spoiler center- line; the lower surface consists of five facets. Maximum height above	W. B. D. E.	H-4 and -5	7121-01269-4 -045	Cornell 109-003 CAL-AA- 1805-Y-1



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>34</sub> (Cont)	command module (29.26 in. aft of the module apex) = 12.23 in. at intersection of forward face and first tapered facet. Module vertex semi-angle = 33 deg.					
L <sub>35</sub>	Two tapered spoilers - Radial locations, $\phi = 90$ and 270 deg (yaw plane). Forward end is located 44.24 in. aft of the module apex. Length (measured along module surface) = 55.00 in. Maximum width = 3.22 in.; minimum width = 1.56 in. The main body has a tab attached to the forward end and also to the aft end; height of tabs above module surface = 2.00 in. The back of the spoiler main body consists of a triple faceted surface with the changes in taper occurring 50.56, 60.26, and 76.76 in. aft of the module apex. There would be a 1.66 in. decrease in spoiler height (measured normal to the center facet of the back) if the three facets on the back were removed; height of spoiler from module surface (at intersection of this cut and a point located 29.26 in. aft	W. B. D. E.	H-4	7121-01269-2 and -3	Cornell 109-003	SID IOL 223-140-63 -045 CAL-AA- 1805-Y-1



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>35</sub> (Cont)	of module apex) = 12.23 in. The upper and lower surfaces (with tabs included) are not similar to each other nor symmetrical about the spoiler centerline. The upper surface is single faceted and 1.22 in. from the spoiler centerline; the lower surface consists of five facets. Module vertex semiangle = 33 deg.					
L <sub>36</sub>	Apex mounted spoiler with supporting cap - The supporting cap whose base is located 47.57 in. aft of the command module apex, consists of ablation material with a 1.43 in. uniform thickness, 9.152 in. inner apex radius, and a 33 deg vertex semiangle.	D. C. C.M.	FS-2	None	TWT-90	None SID 63-1035

The spoiler is paddle shaped, symmetrical about the module centerline, and mounted to the supporting cap in the  $\phi = 90$  and  $270$  deg plane (yaw plane).

Dimensions of spoiler located radially at  $\phi = 90$  deg; forward end is located 21.50 in. forward of module



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>36</sub> (Cont)	<p>apex. Length (measured along module centerline) = 69.07 in. and thickness = 1.81 in. The back of the spoiler is double tapered with the first taper beginning 21.50 in. forward of module apex and 10.62 in. from module centerline; the second taper begins 23.75 in. aft of module apex and 20.95 in. from module centerline. Forward face and first tapered surface are joined by an arc of 4.00 in. radius; aft end of the second tapered surface and base of supporting cap are joined by an arc of 1.00 in. radius.</p> <p>Dimensions of spoiler located radially at <math>\phi = 270</math> deg; same as for <math>\phi = 90</math> deg.</p>					
L <sub>37</sub>	<p>Apex mounted spoiler with supporting cap - Same as "L<sub>36</sub>" except there is an additional fairing added to the back of the second tapered surface. Forward face of fairing is perpendicular to module centerline and located 27.57 in. aft of module apex. Length (measured parallel to module surface) = 38.81 in., thickness = 1.81 in.</p>	D. C. C. M.	FS-2	None	TWT-90 None SID 63-1035	



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
L <sub>37</sub> (Cont)	and height above module surface = 12.00 in. Forward face and back (also aft face and back) are joined by an arc of 4.00 in. radius.					
L <sub>38</sub>	Apex mounted spoiler with supporting cap - The supporting cap, whose base is located 47.57 in. aft of the command module apex, consists of ablation material with a 1.43 in. uniform thickness, 9.152 in. inner apex radius, and a 33 deg vertex semiangle.	D. C. C. M.	FS-2	None	TWT-90	None SID 63-1035

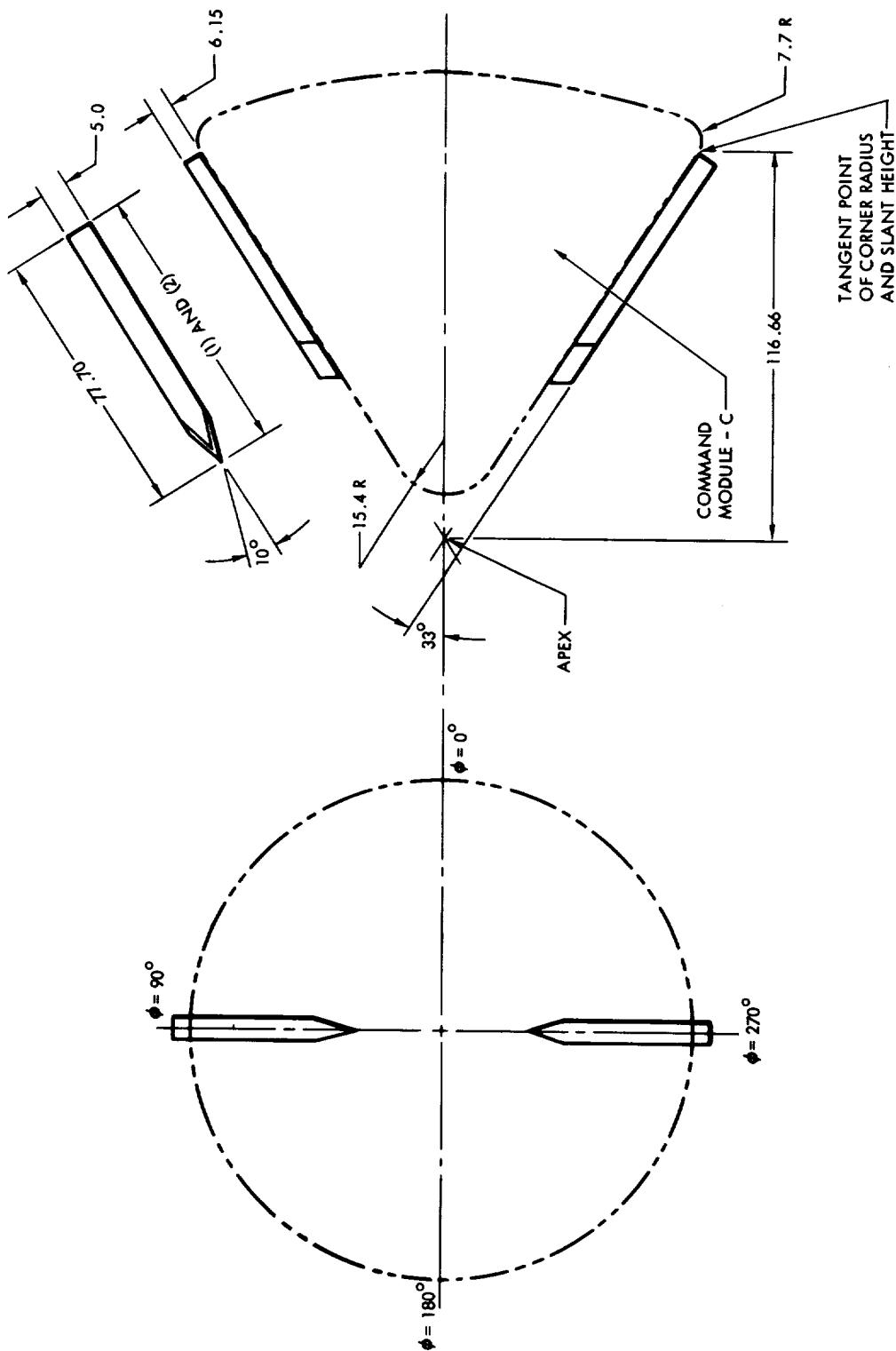
The spoiler is paddle shaped, symmetrical about the module centerline, and mounted to the supporting cap in the  $\phi = 90$  and  $270$  deg plane (yaw plane).

Dimensions of spoiler located radially at  $\phi = 90$  deg: Forward end is located 21.50 in. forward of module apex. Length (measured along module centerline) = 69.07 in. and thickness = 1.81 in. The back of the spoiler is single tapered; taper begins 21.50 in. forward of module



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engnr	Model	Drawing No.	Test No.
					Pretest and Data Reports
L <sub>38</sub> (Cont)	apex and 14.00 in. from module centerline and ends 47.57 in. aft of module apex and 34.00 in. from module centerline. Forward face and tapered surface are joined by an arc of 4.00 in. radius; aft end of tapered surface and base of supporting cap are joined by an arc of 1.00 in. radius.				

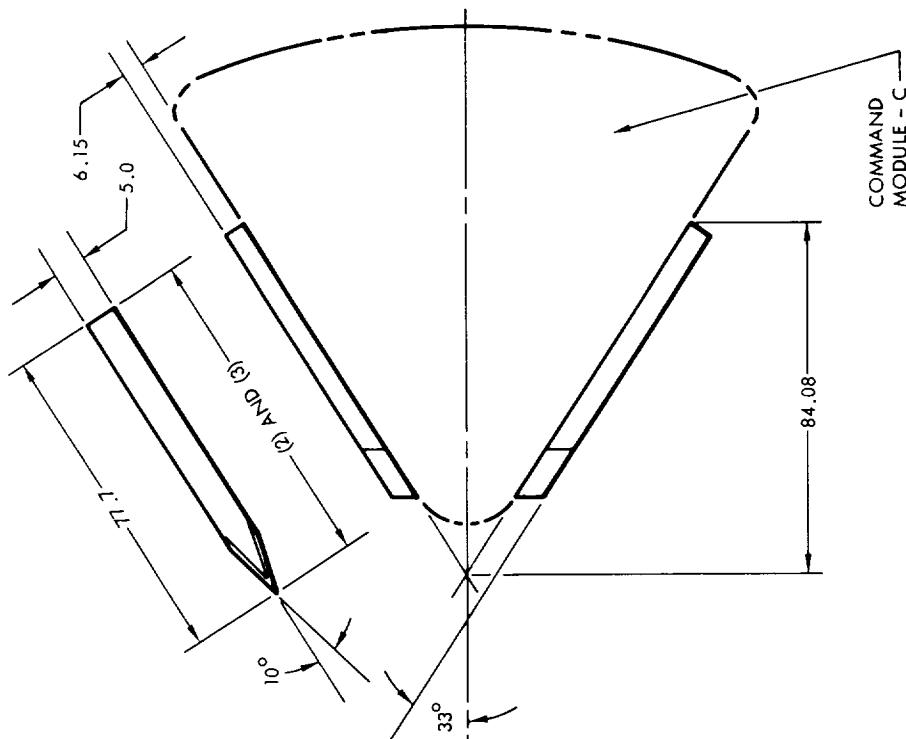
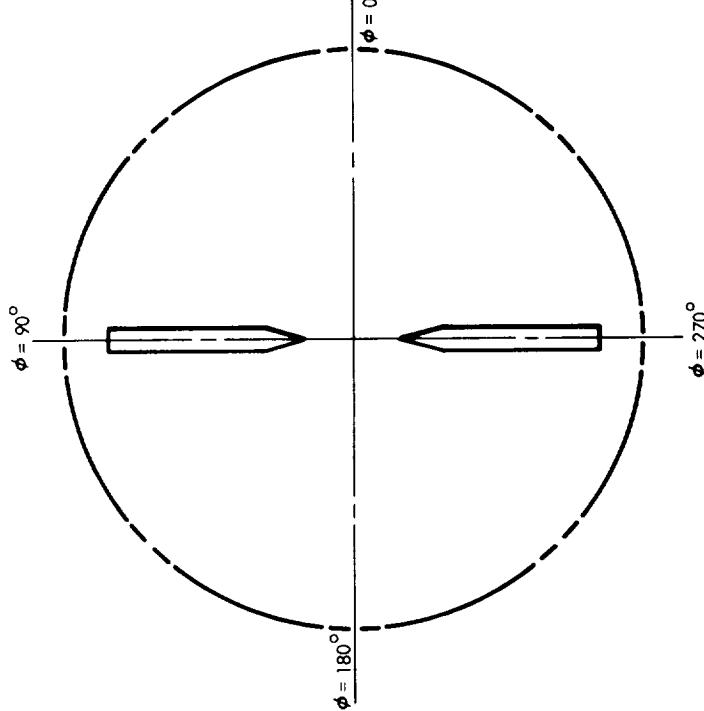
Dimensions of spoiler located radially at  $\phi = 270$  deg: Same as for  $\phi = 90$  deg.



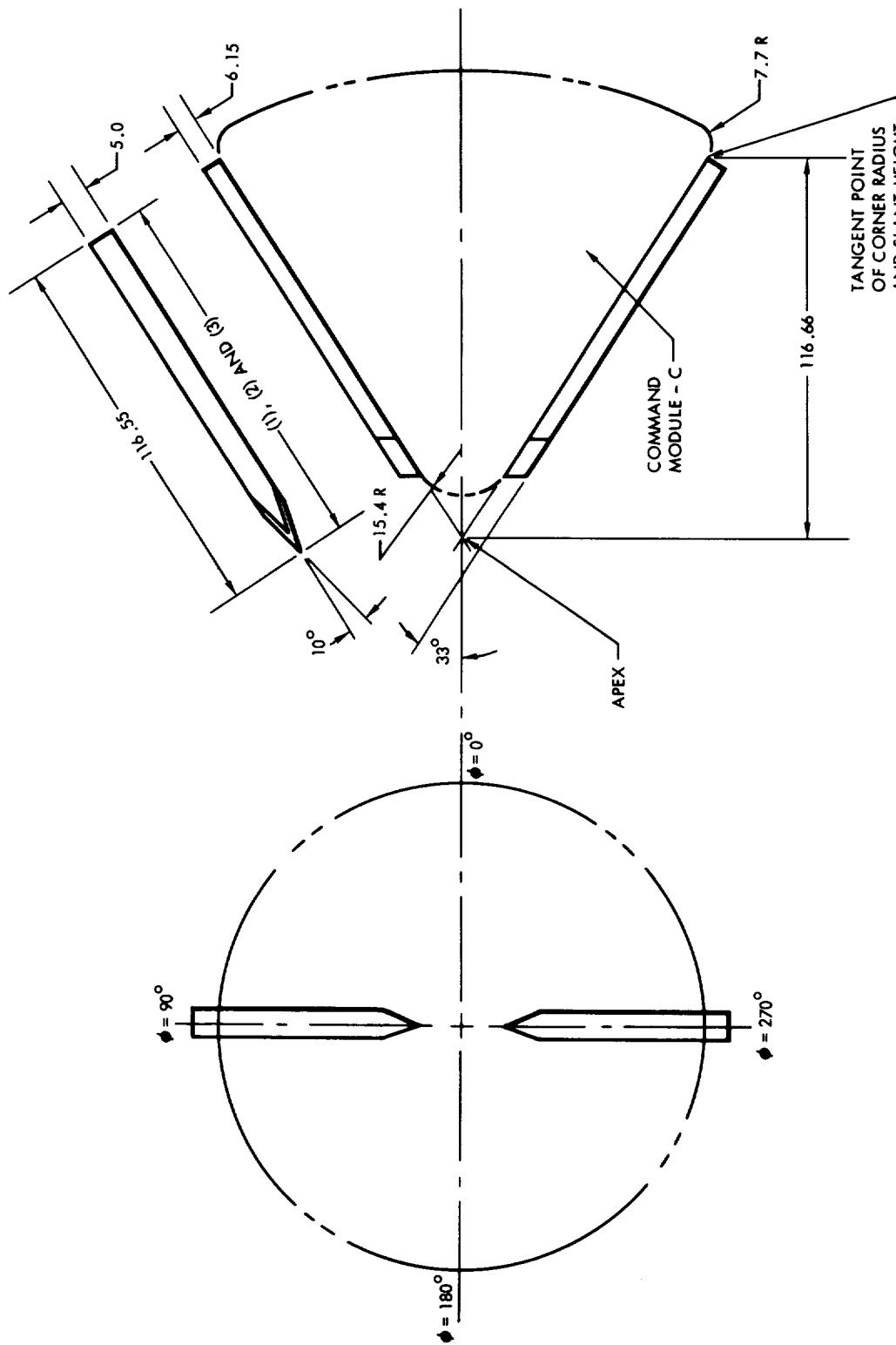
DRAWING NOT TO SCALE

SPOILER (L)

FULL-SCALE DIMENSIONS IN INCHES

SPOILER L<sub>2</sub>

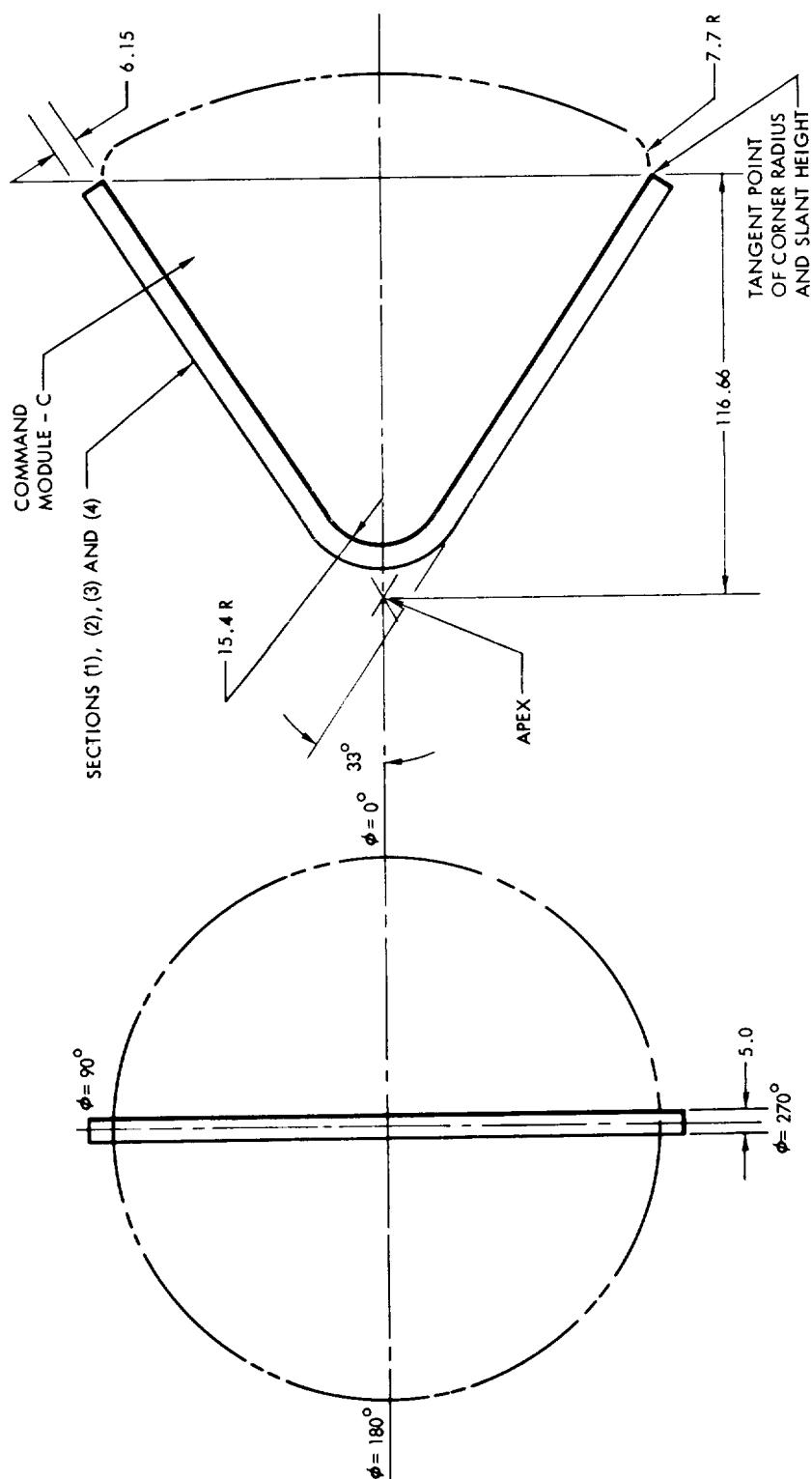
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

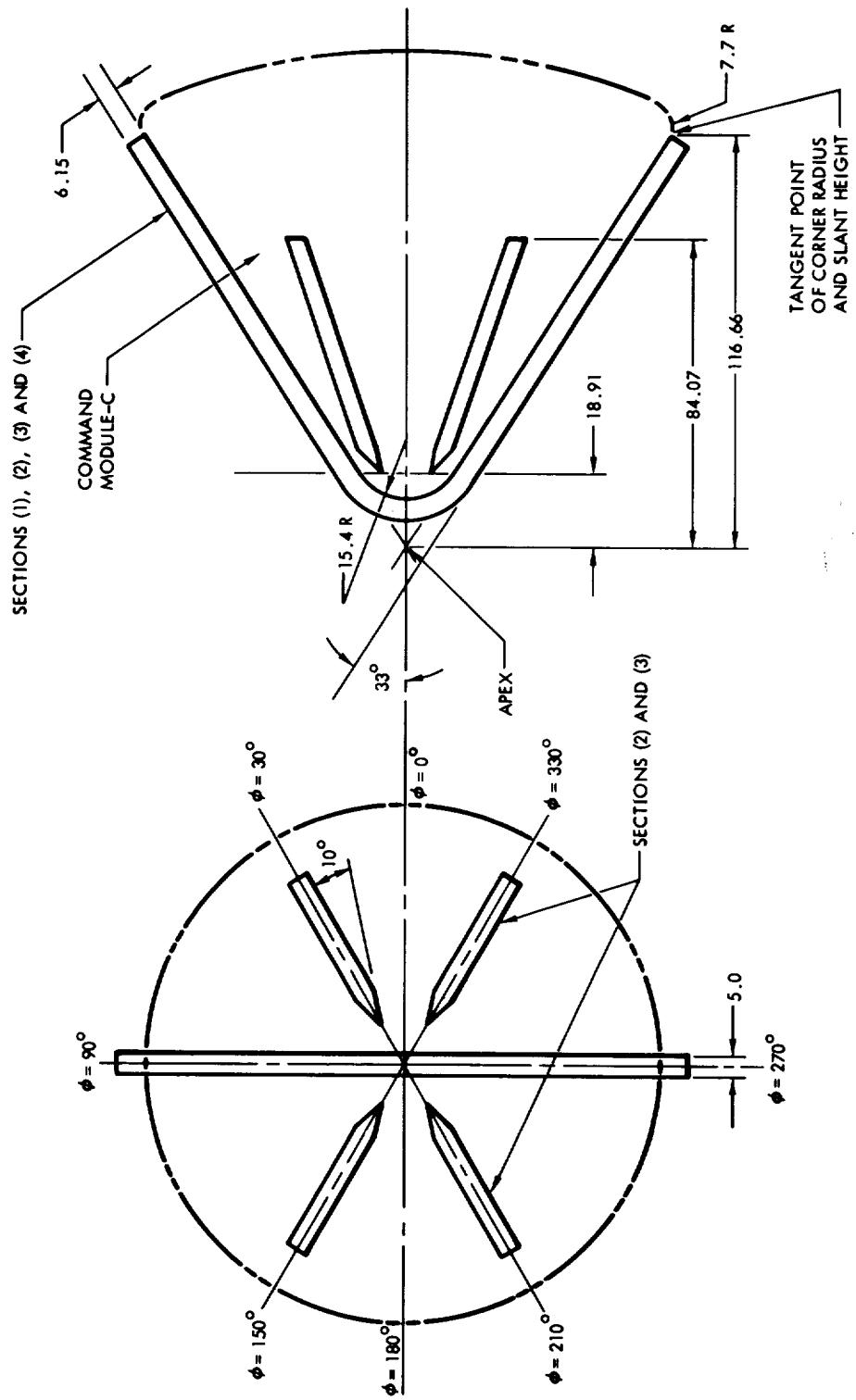
SPOILER L<sub>3</sub>

DRAWING NOT TO SCALE

SPOILER L<sub>4</sub>

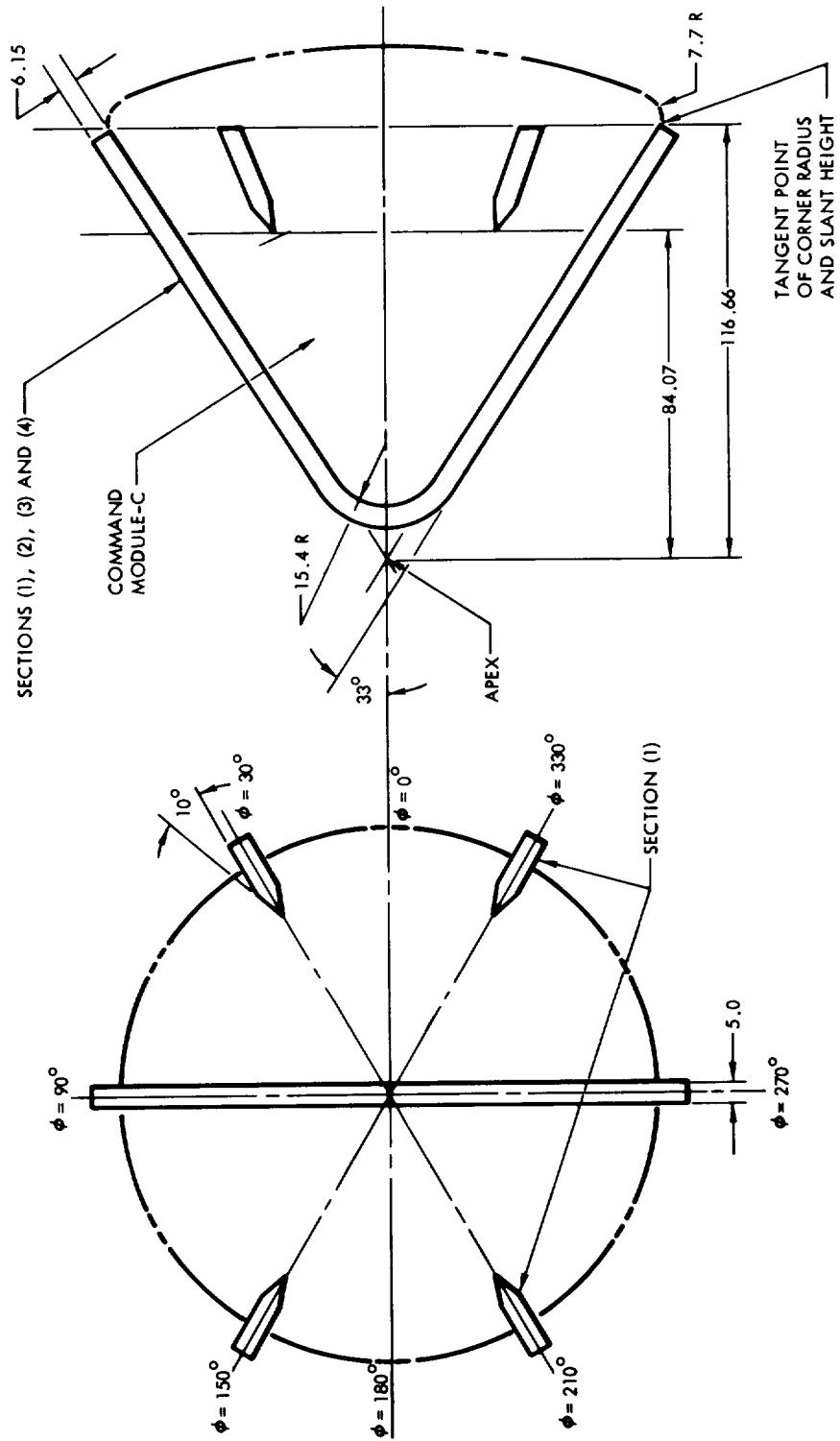
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

SPOILER L<sub>5</sub>

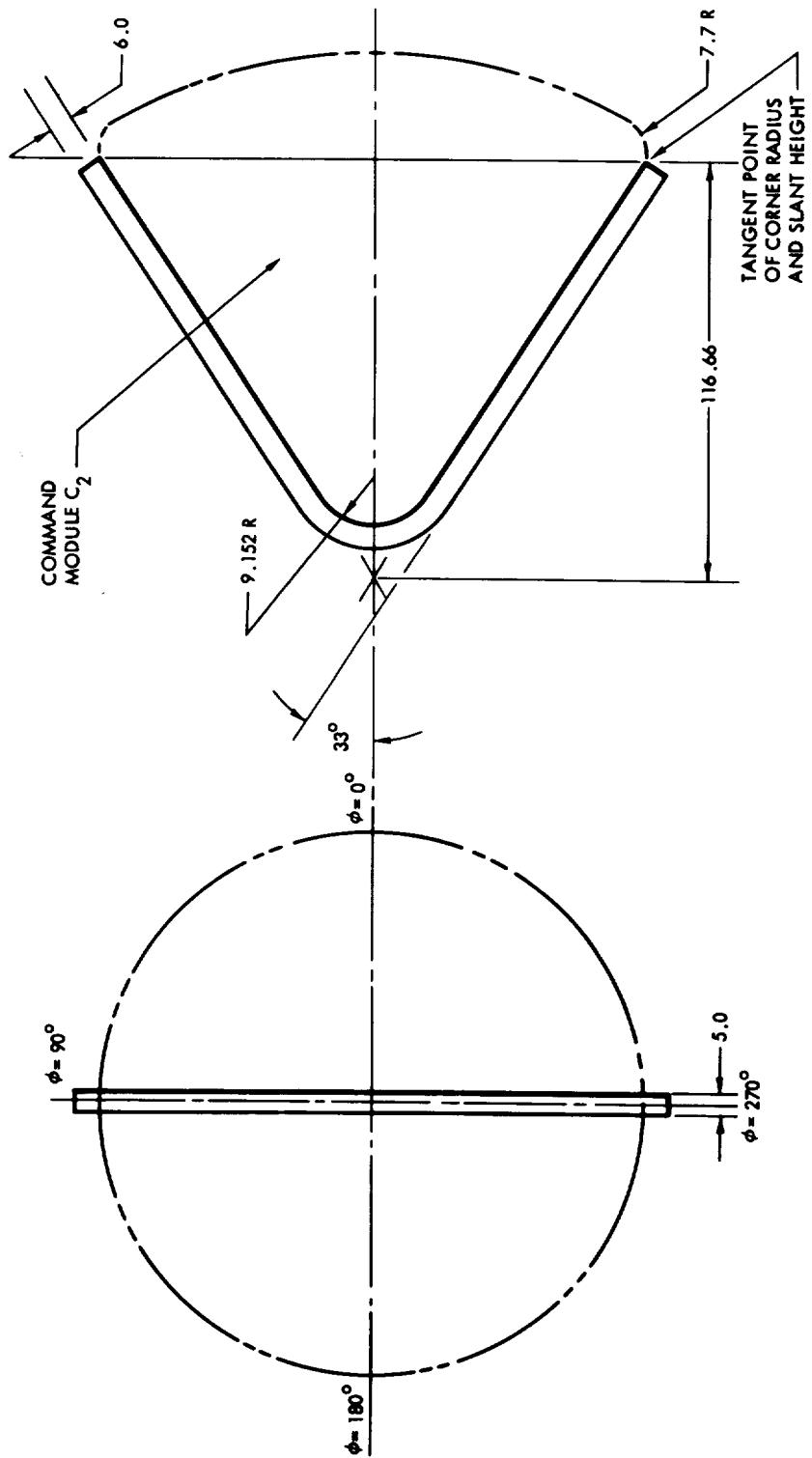
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

SPOILER L<sub>6</sub>

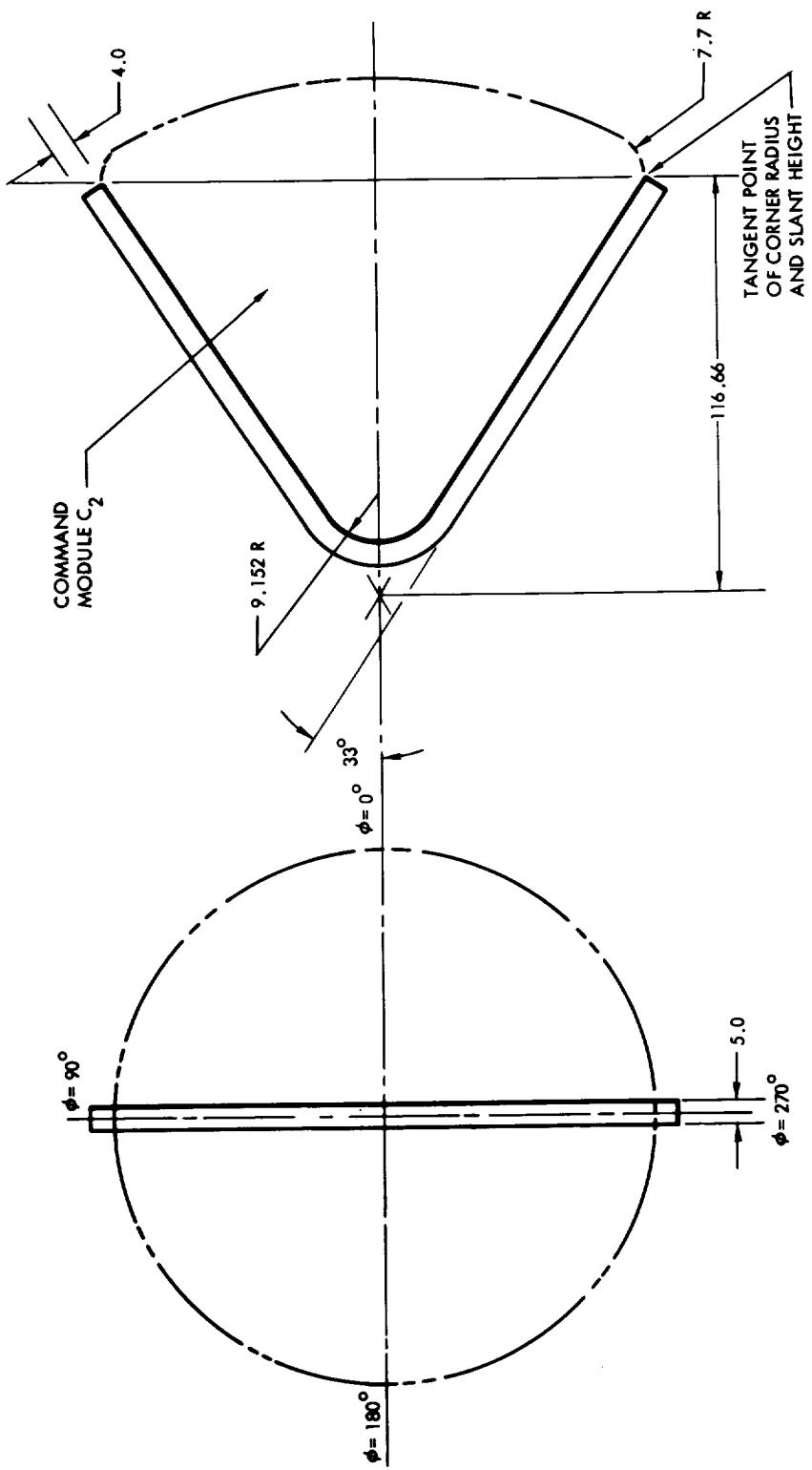
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

SPOILER L<sub>7</sub>

FULL-SCALE DIMENSIONS IN INCHES

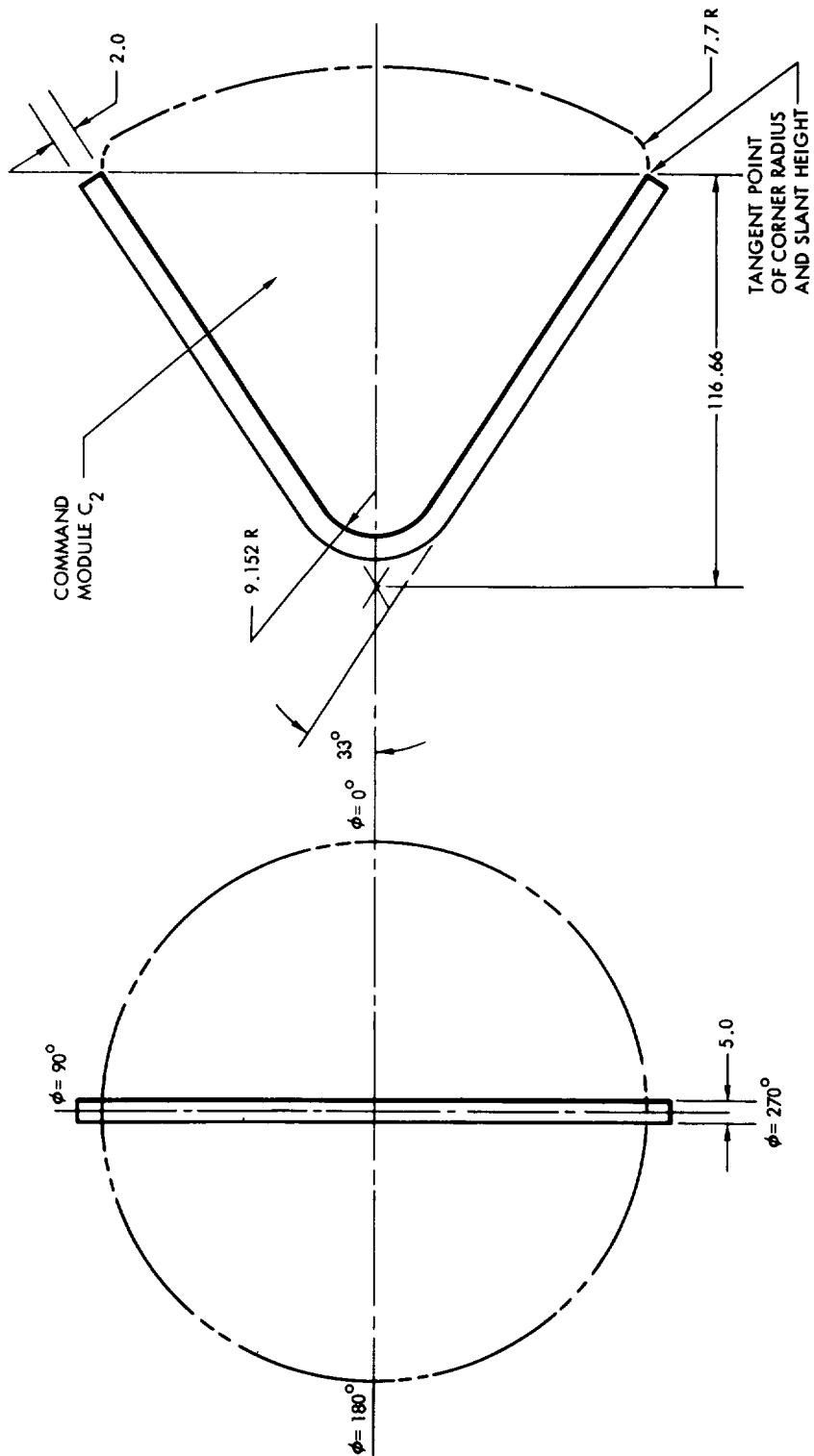
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

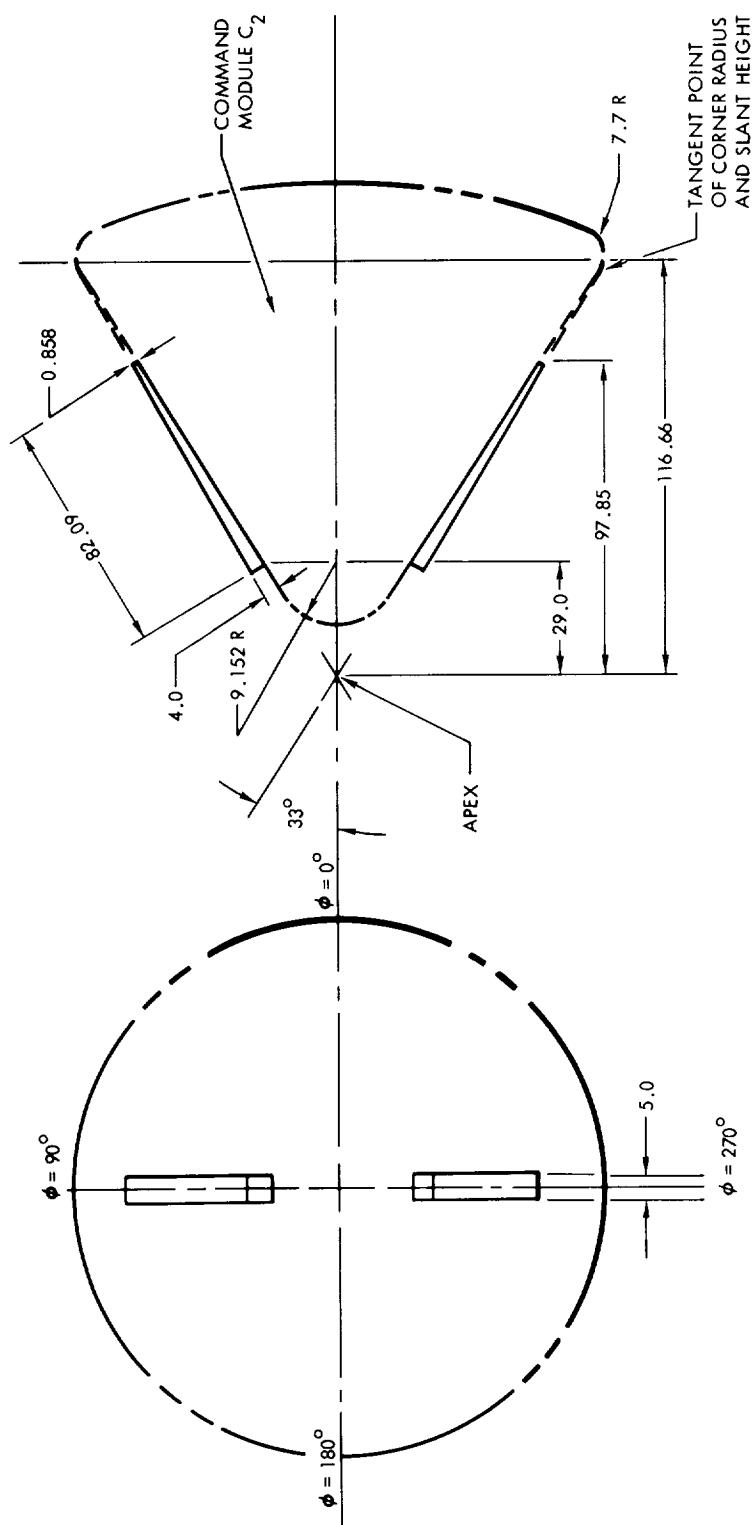
SPOILER L<sub>8</sub>

DRAWING NOT TO SCALE

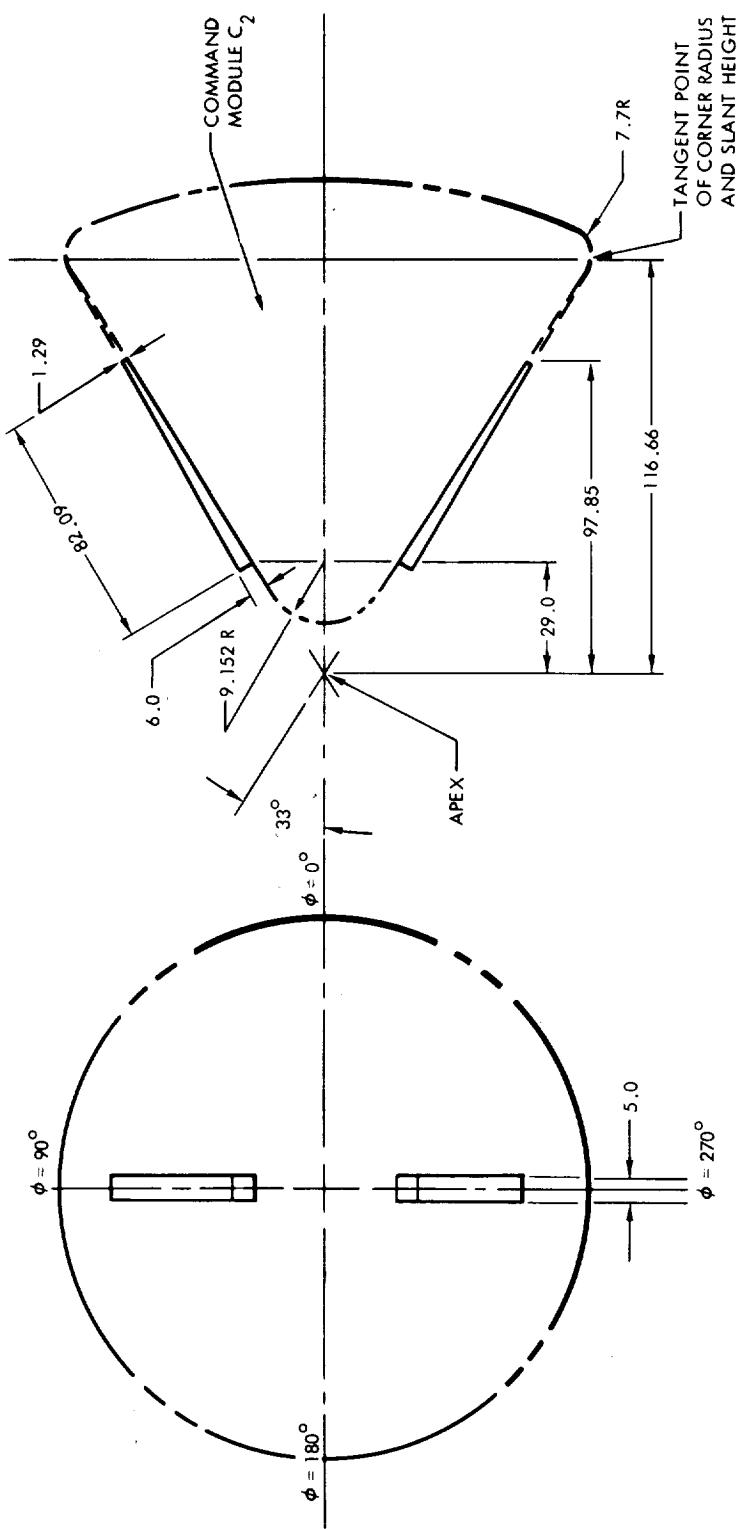
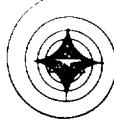
SPOILER L<sub>9</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

SPOILER L<sub>10</sub>

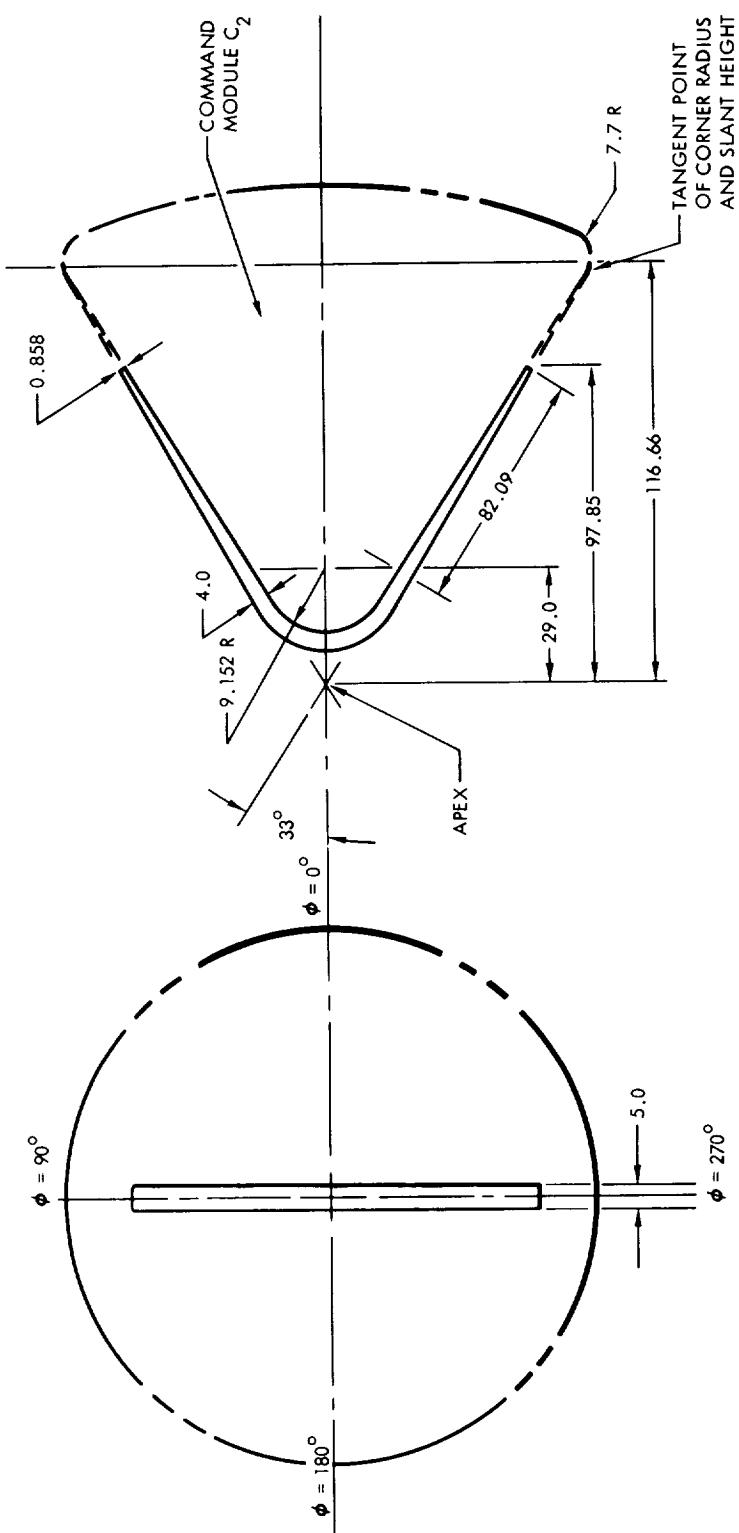
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

SPOILER L<sub>11</sub>

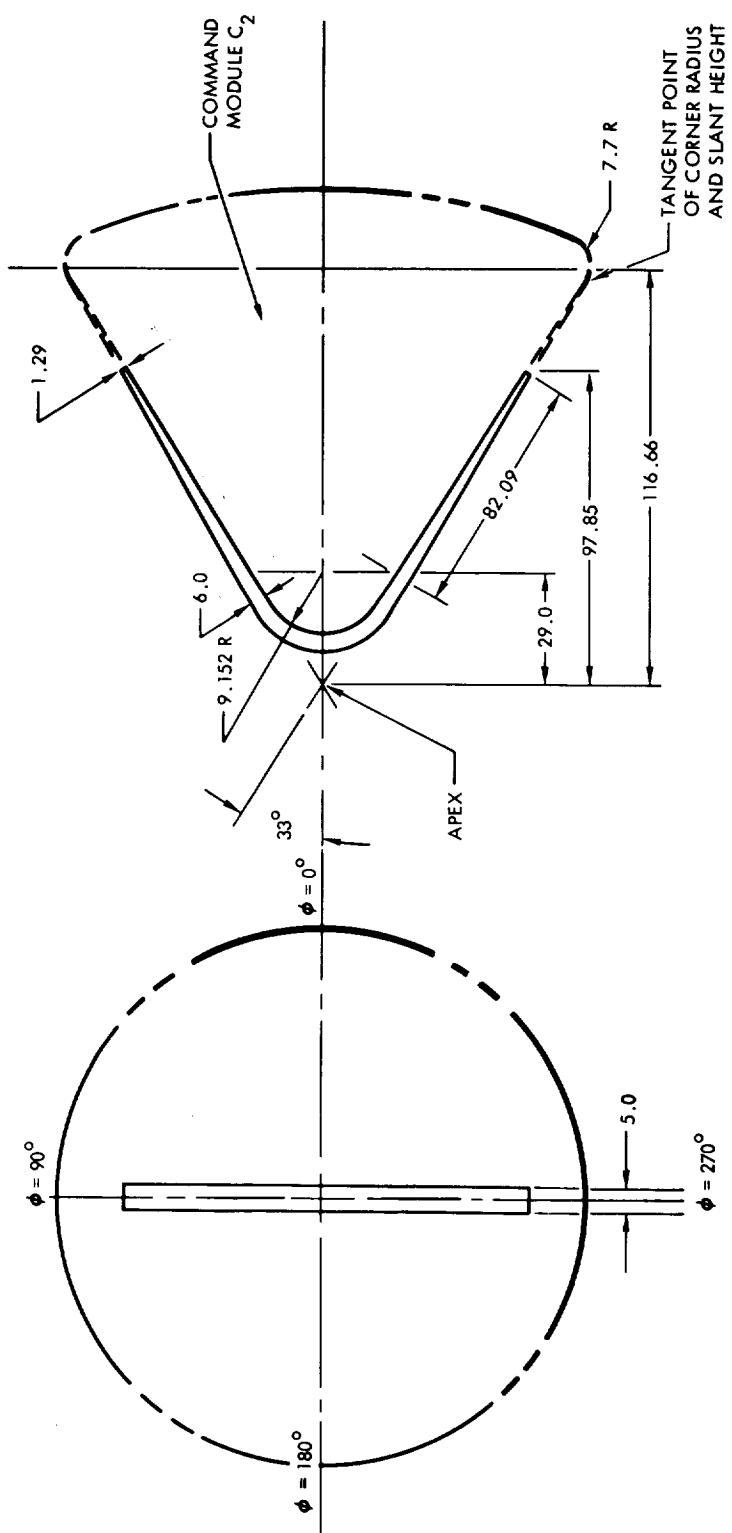
FULL-SCALE DIMENSIONS IN INCHES



DRAWING NOT TO SCALE

SPOILER L<sub>12</sub>

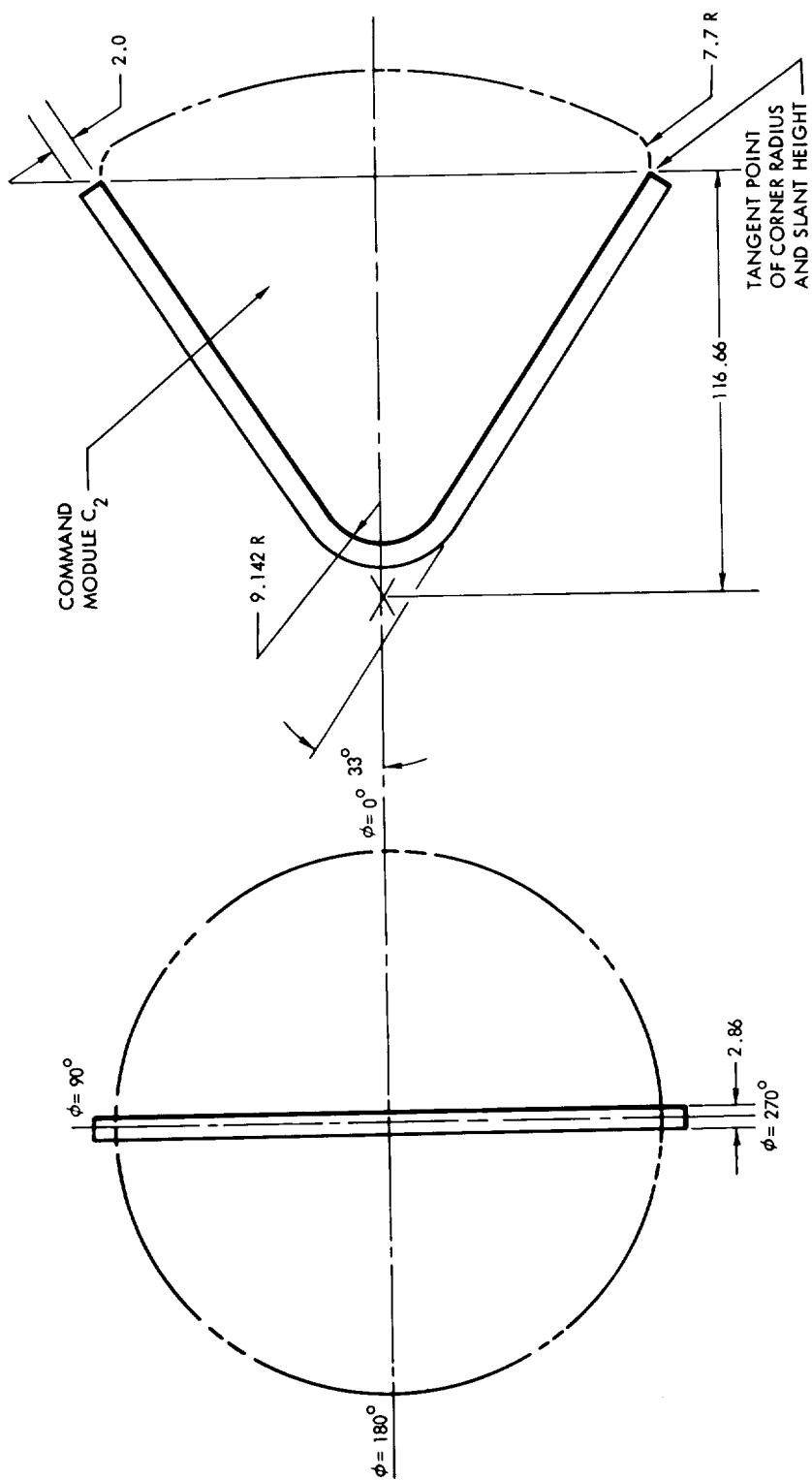
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

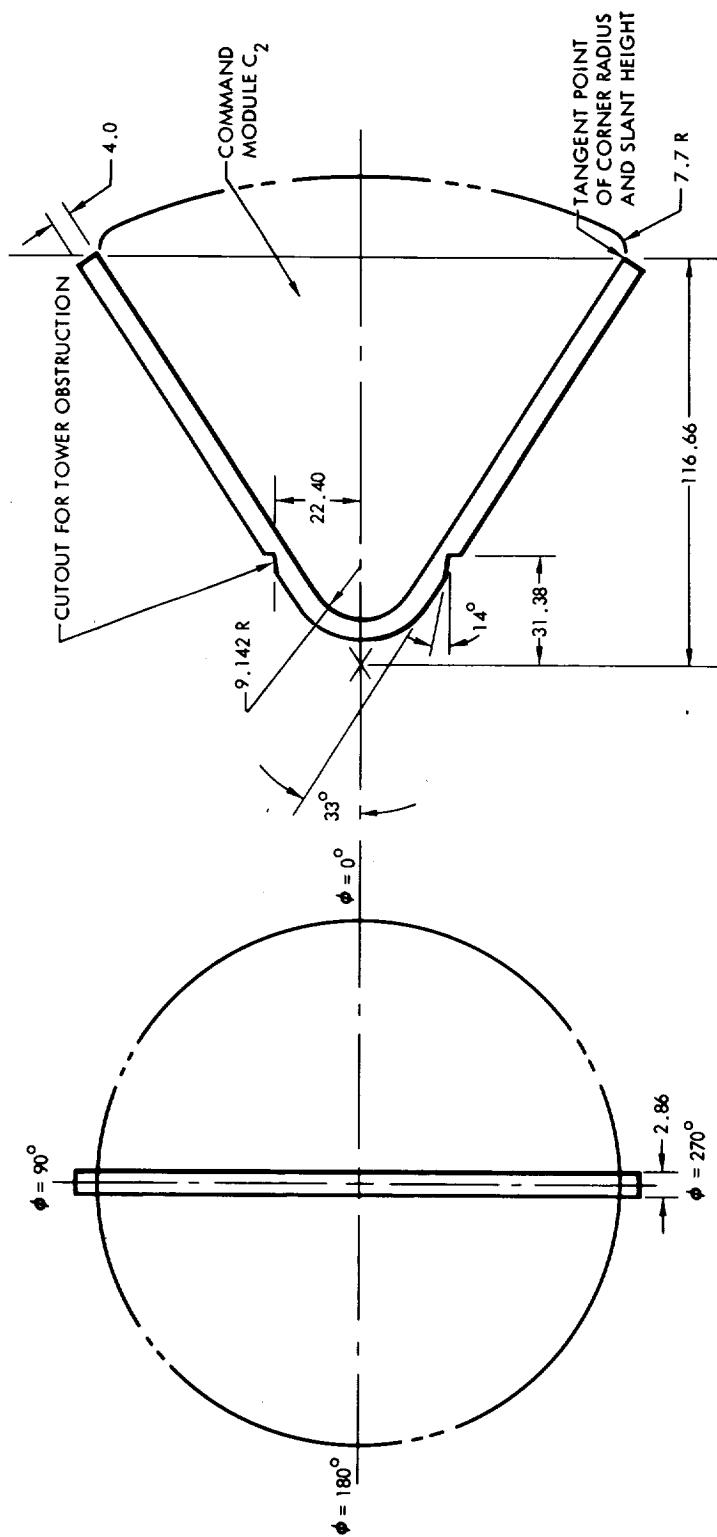
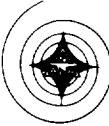
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DRAWING NOT TO SCALE

SPOILER L<sub>14</sub>

FULL-SCALE DIMENSIONS IN INCHES

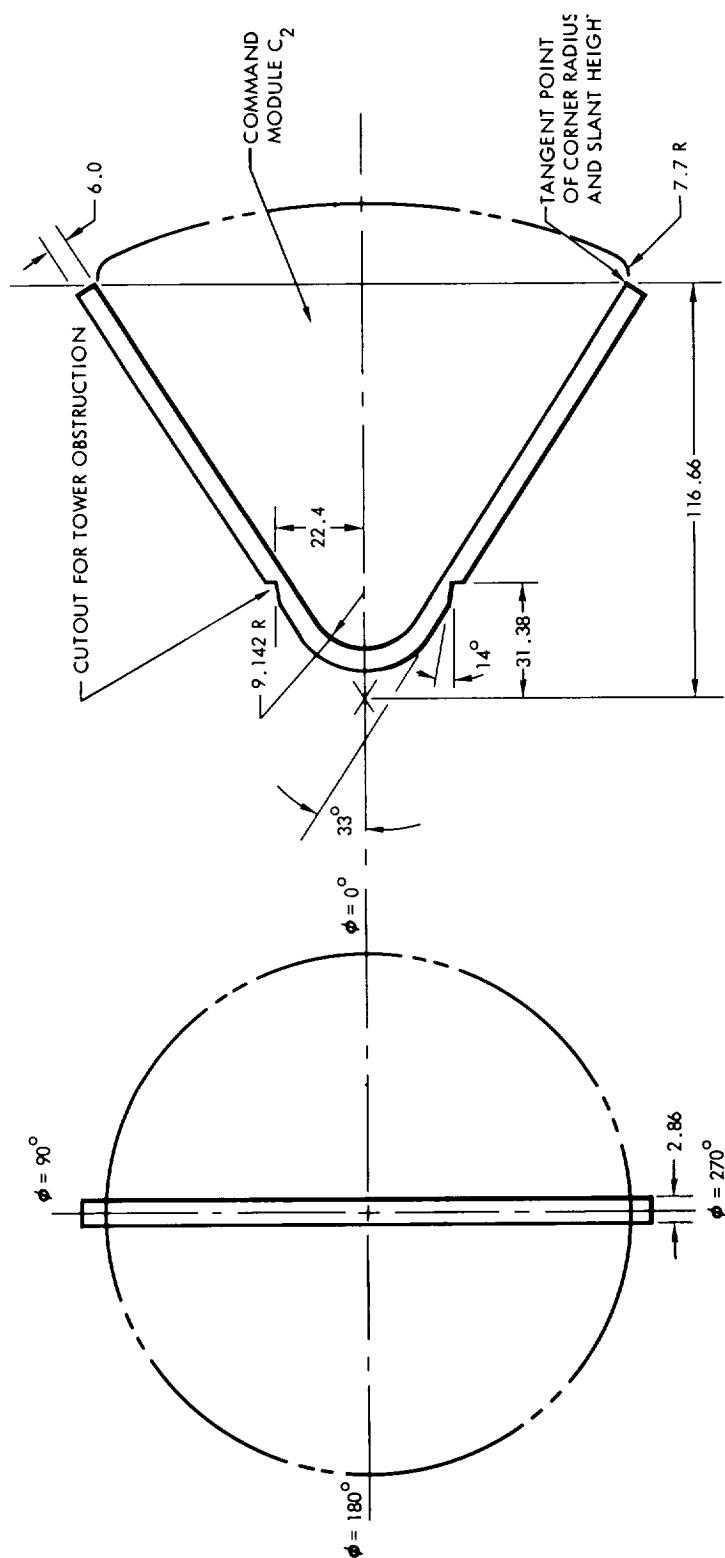
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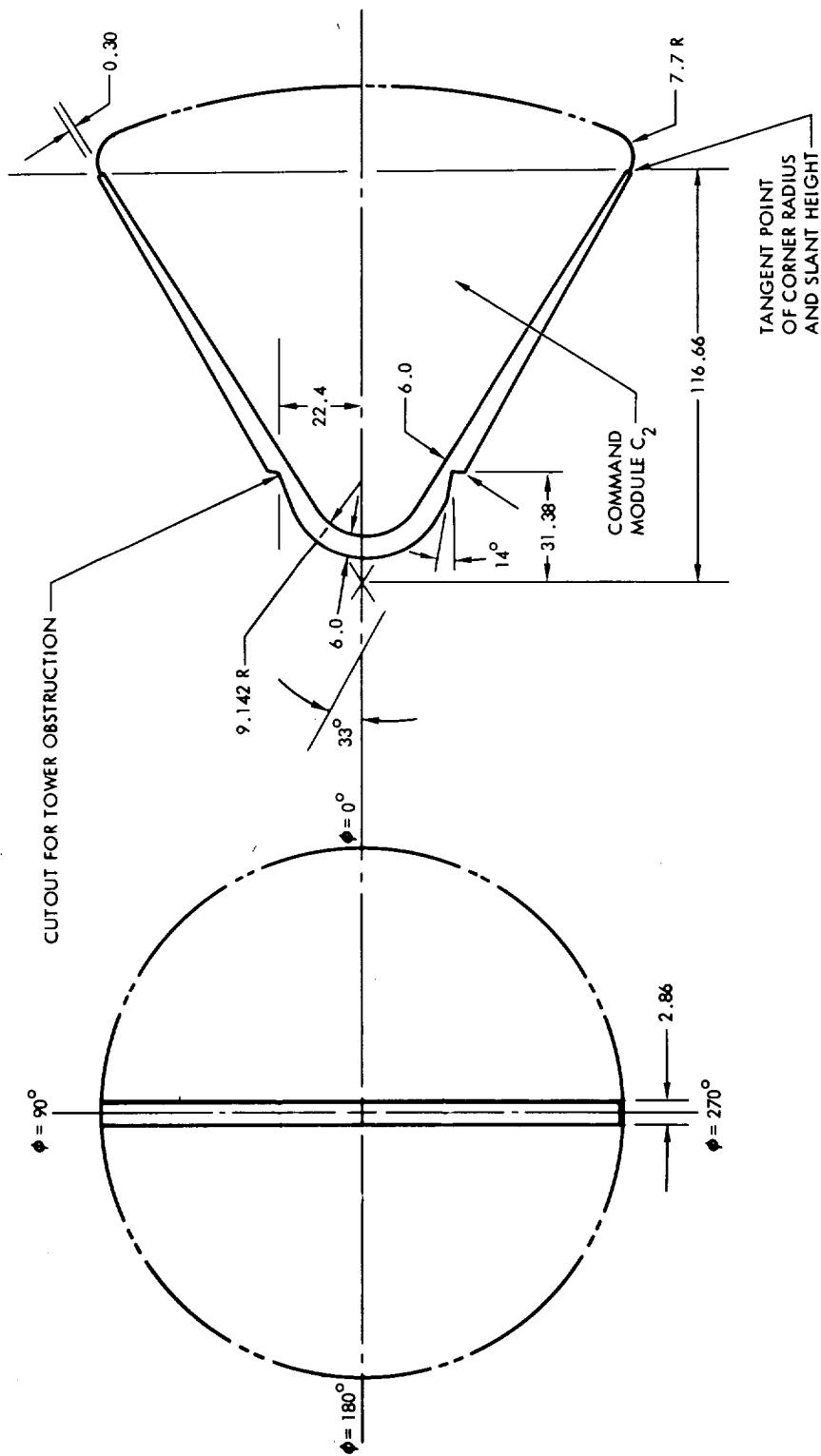
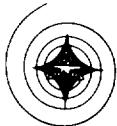
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FULL-SCALE DIMENSIONS IN INCHES

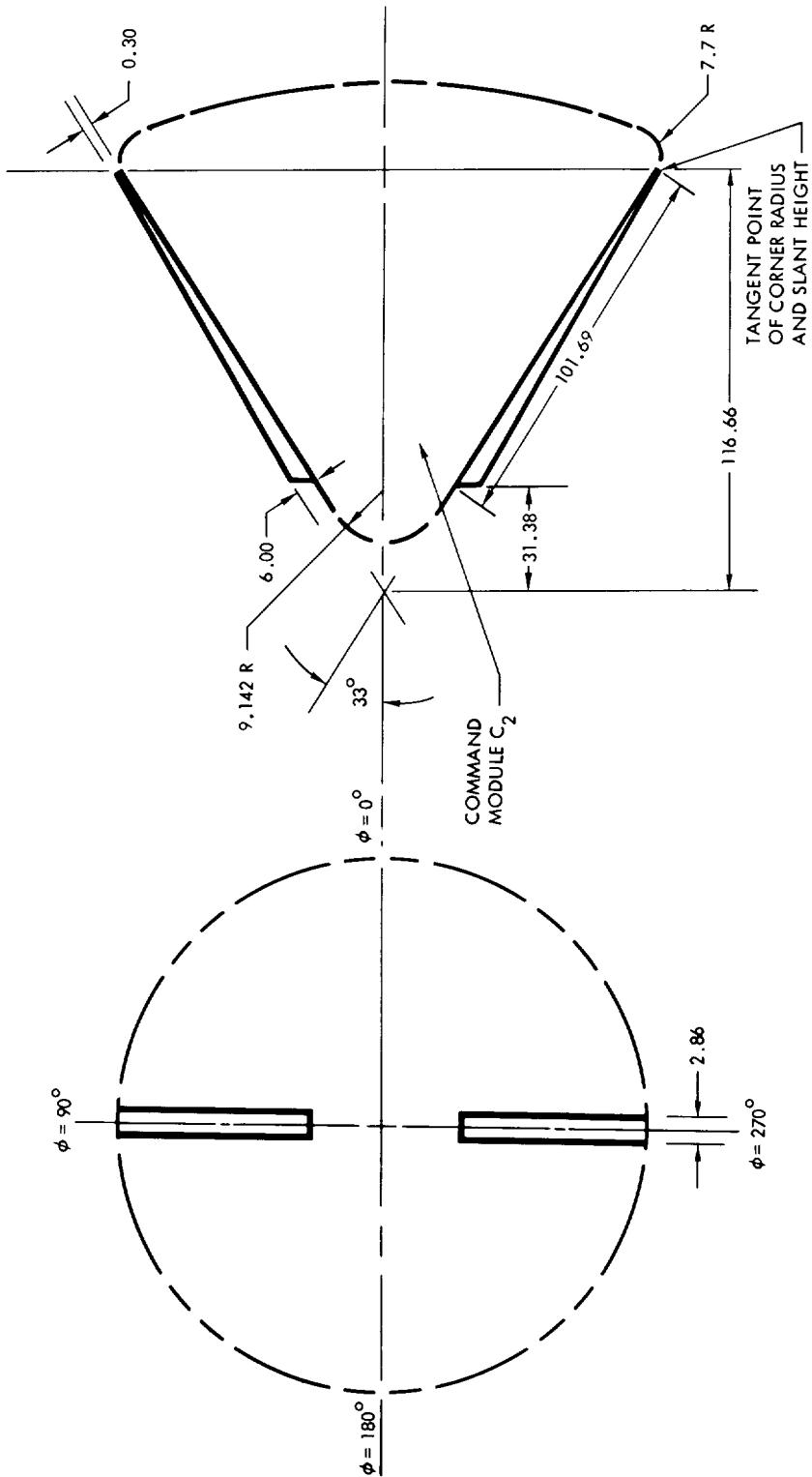
SPOILER L<sub>16</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

SPOILER L<sub>17</sub>

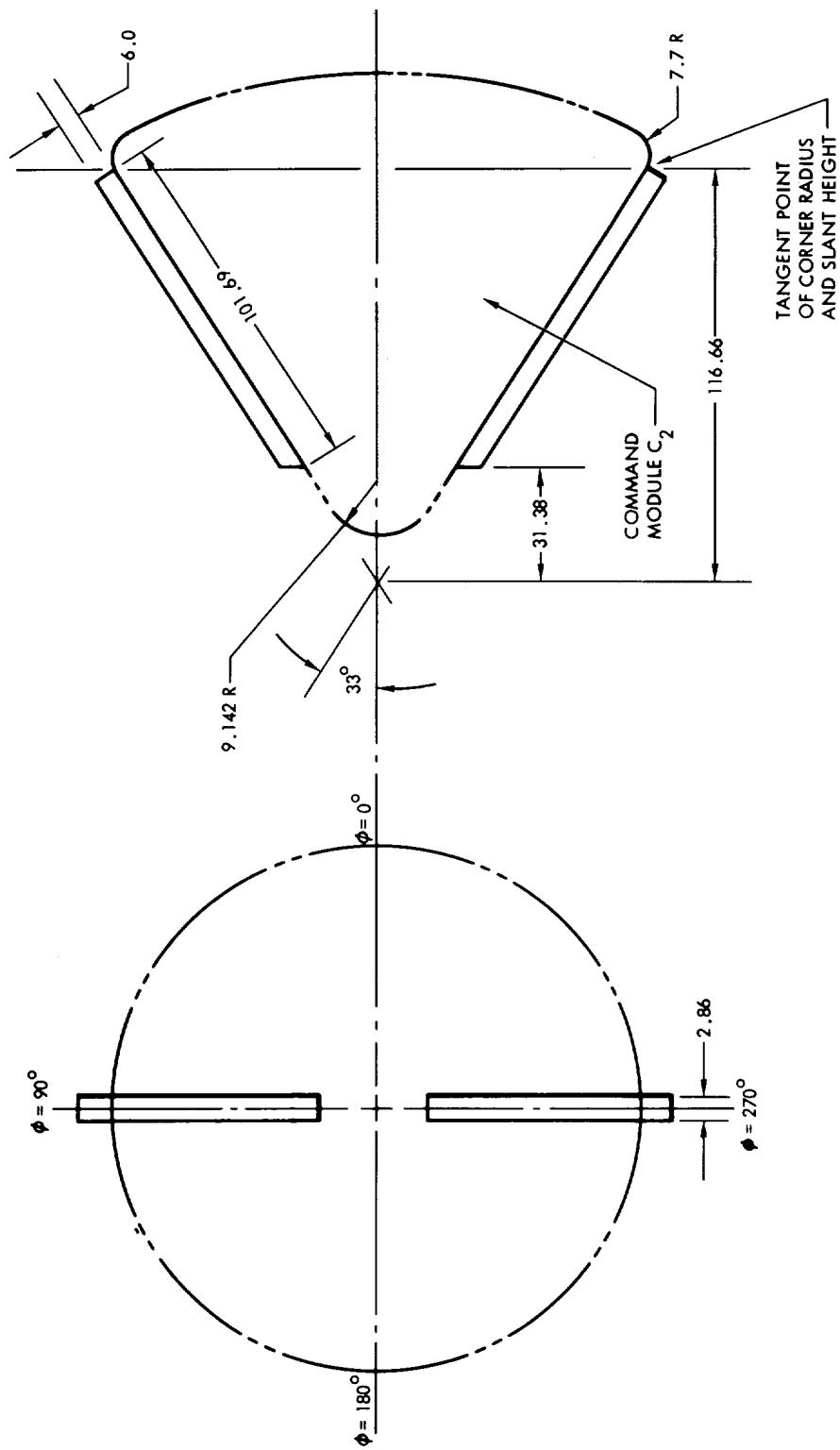
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

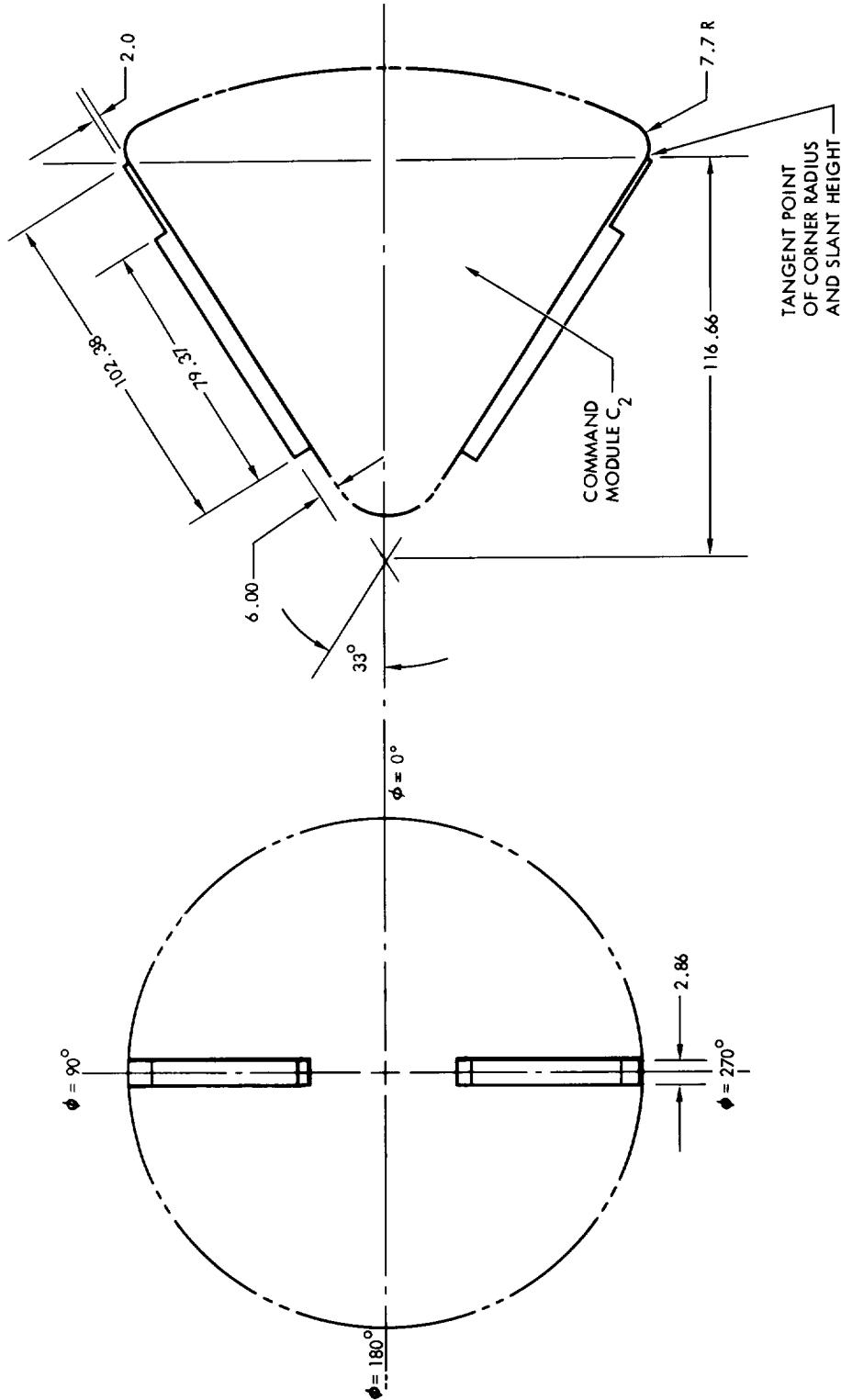
SPOILER L18

DRAWING NOT TO SCALE

SPOILER L<sub>19</sub>

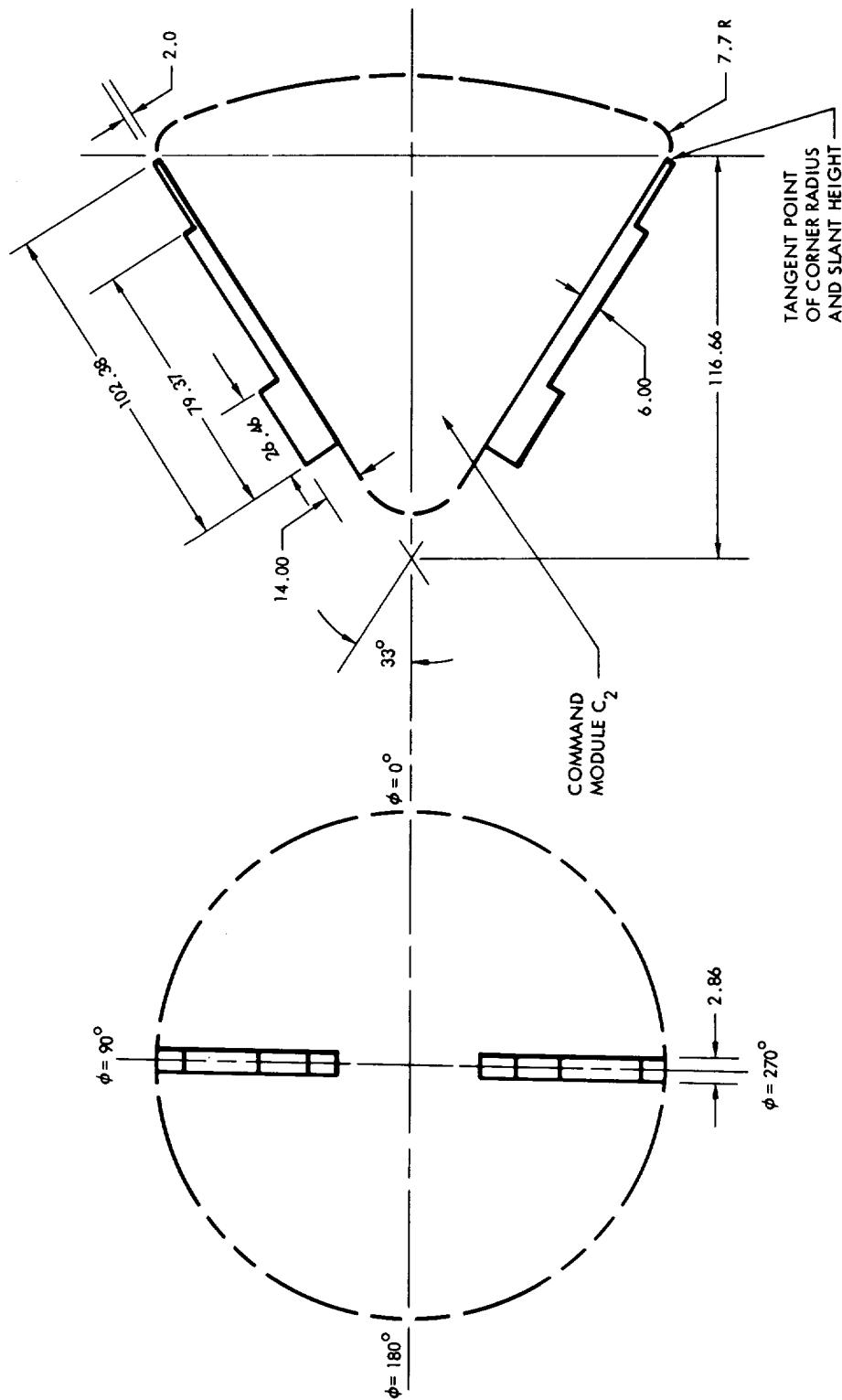
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

SPOILER L<sub>20</sub>

FULL-SCALE DIMENSIONS IN INCHES

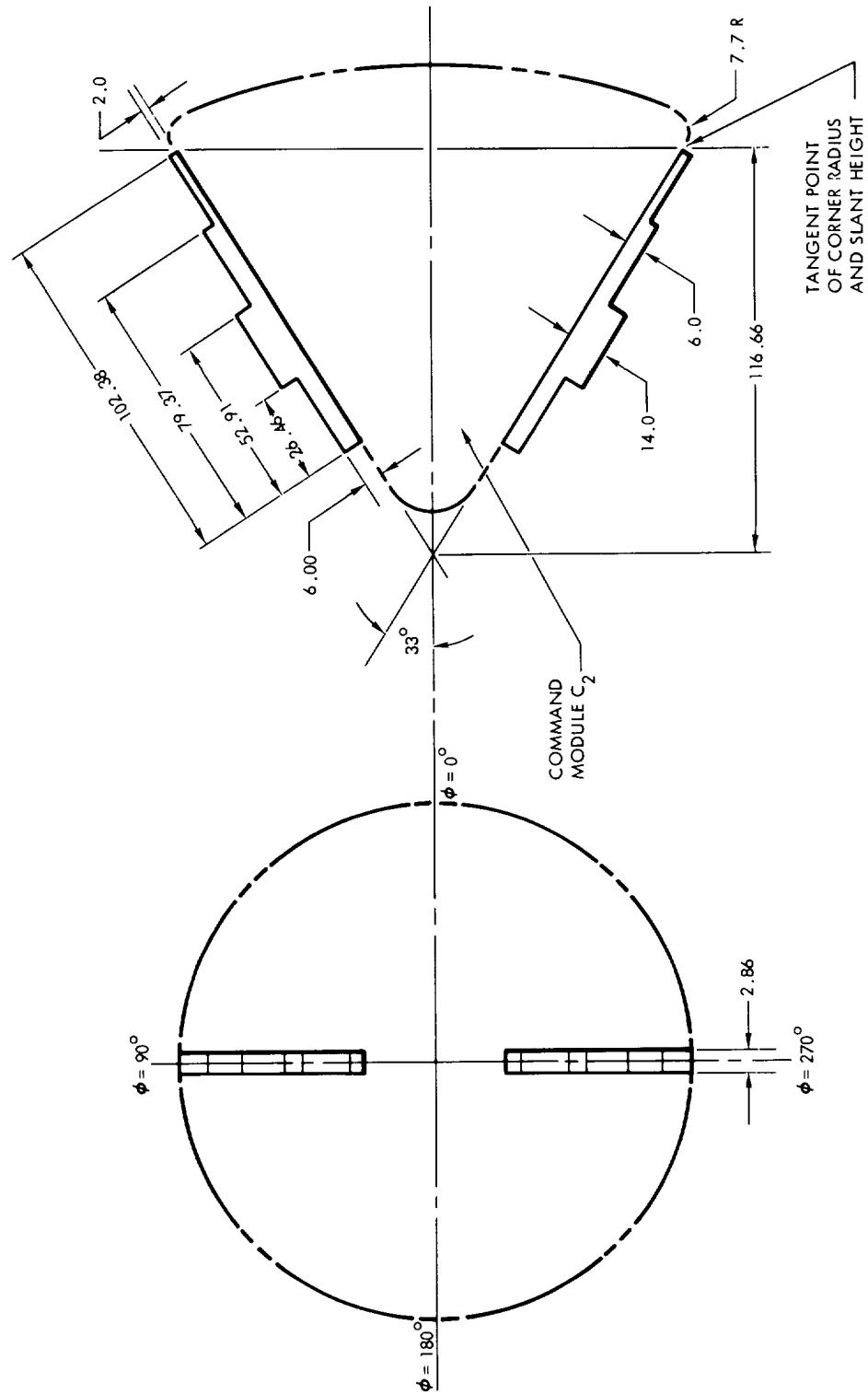
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

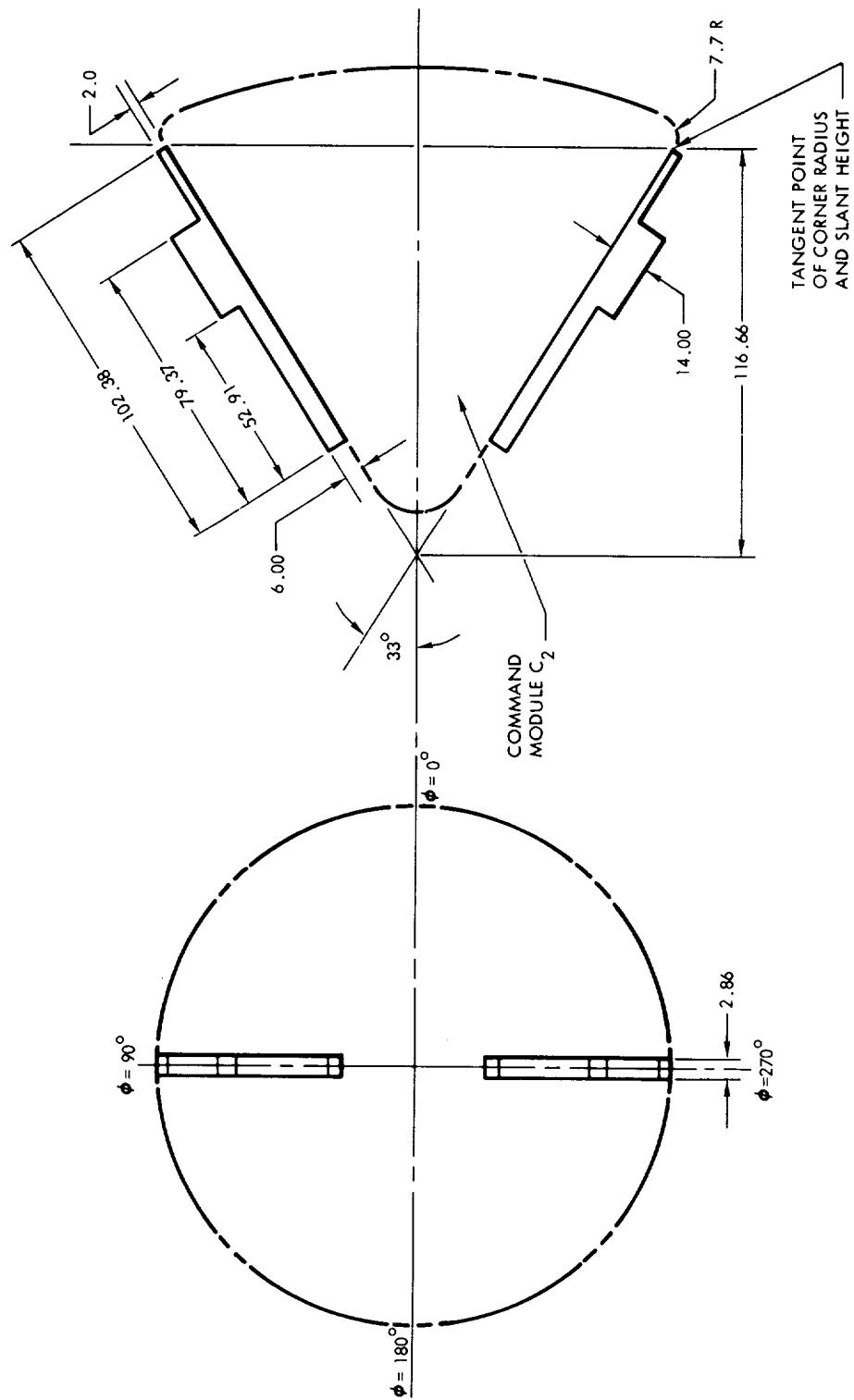
SPOILER L<sub>21</sub>

FULL-SCALE DIMENSIONS IN INCHES

SPOILER L<sub>22</sub>

FULL-SCALE DIMENSIONS IN INCHES

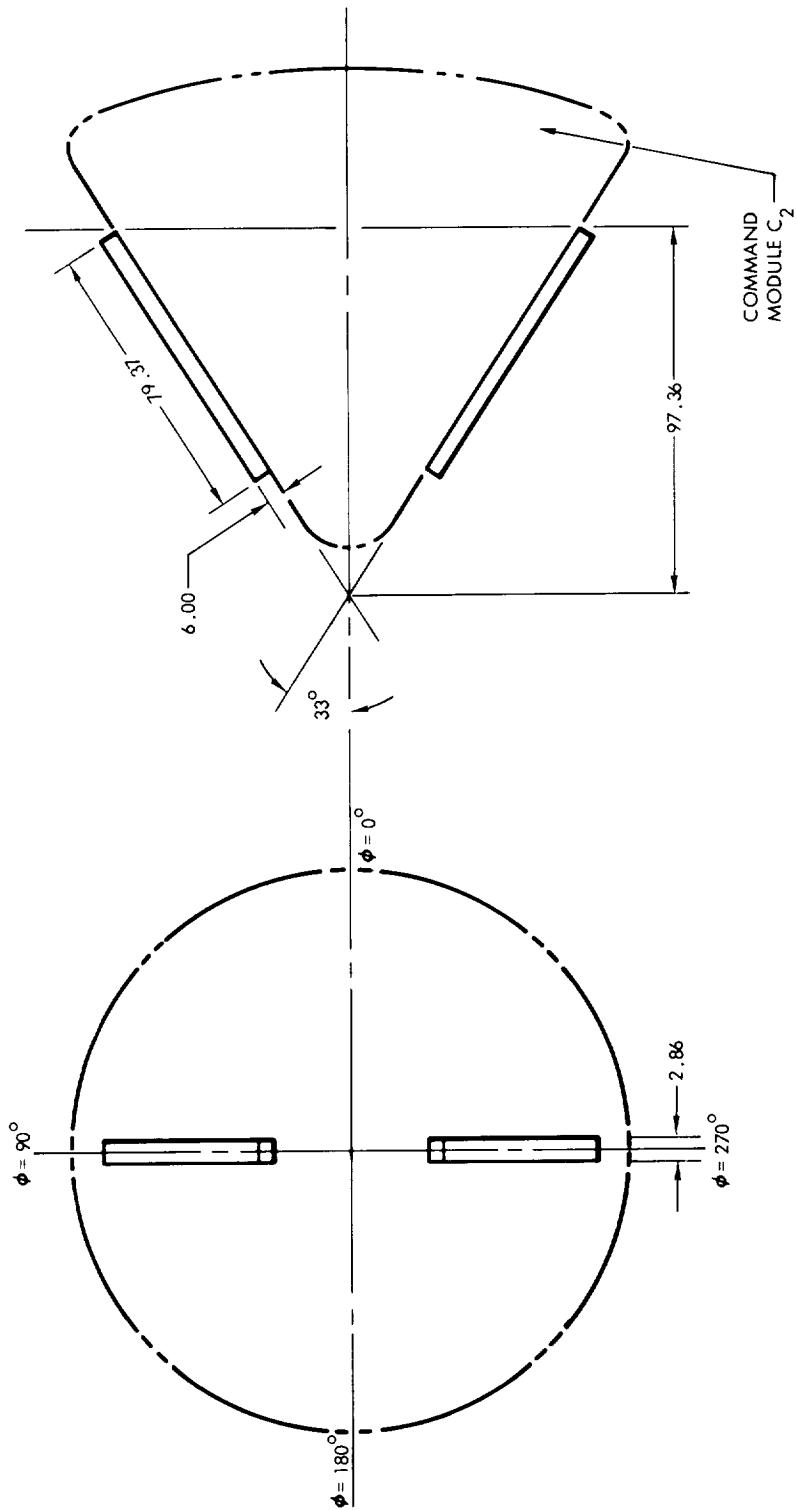
DRAWING NOT TO SCALE



SPOILER L23

FULL-SCALE DIMENSIONS IN INCHES

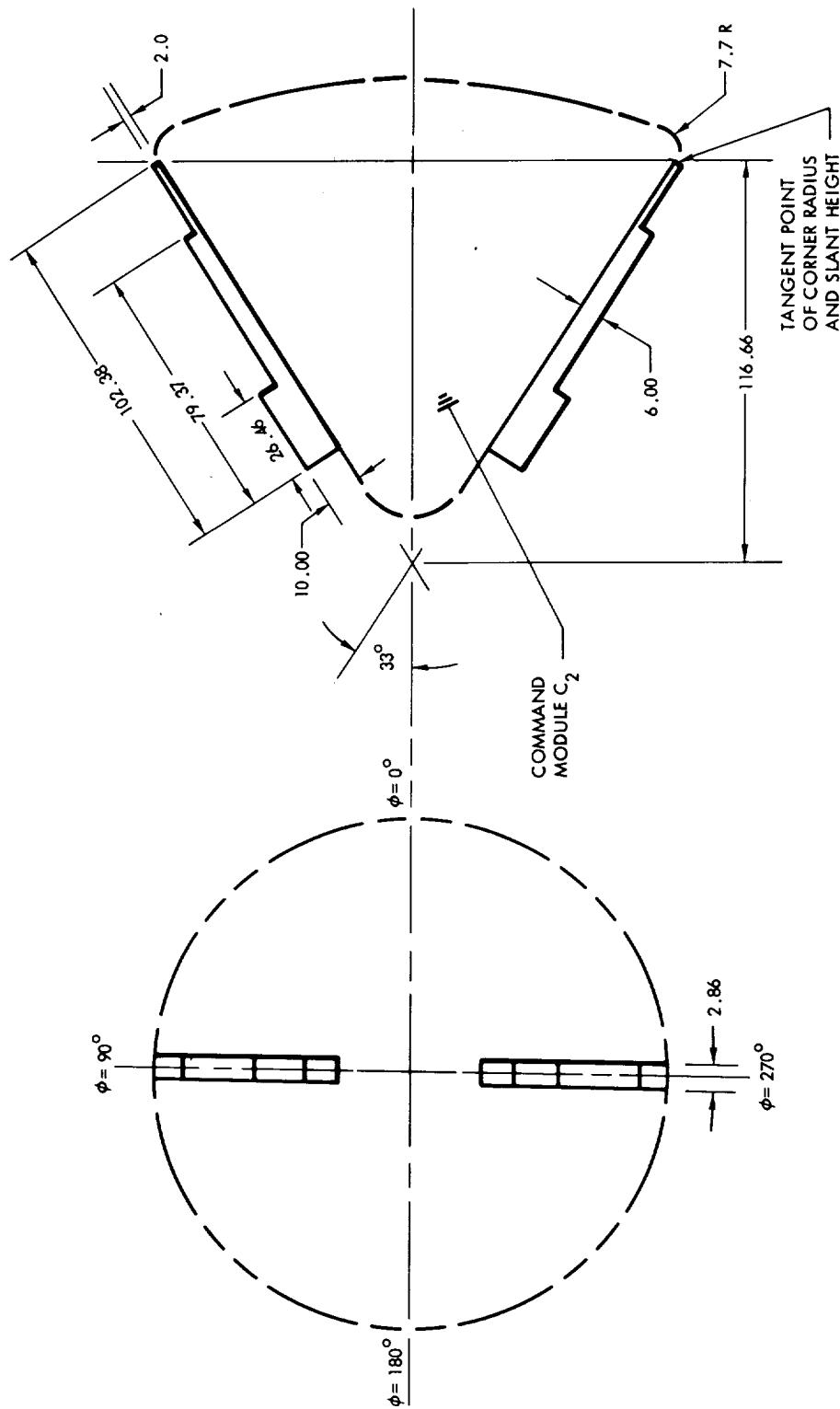
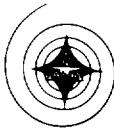
DRAWING NOT TO SCALE



SPOILER L24

FULL-SCALE DIMENSIONS IN INCHES

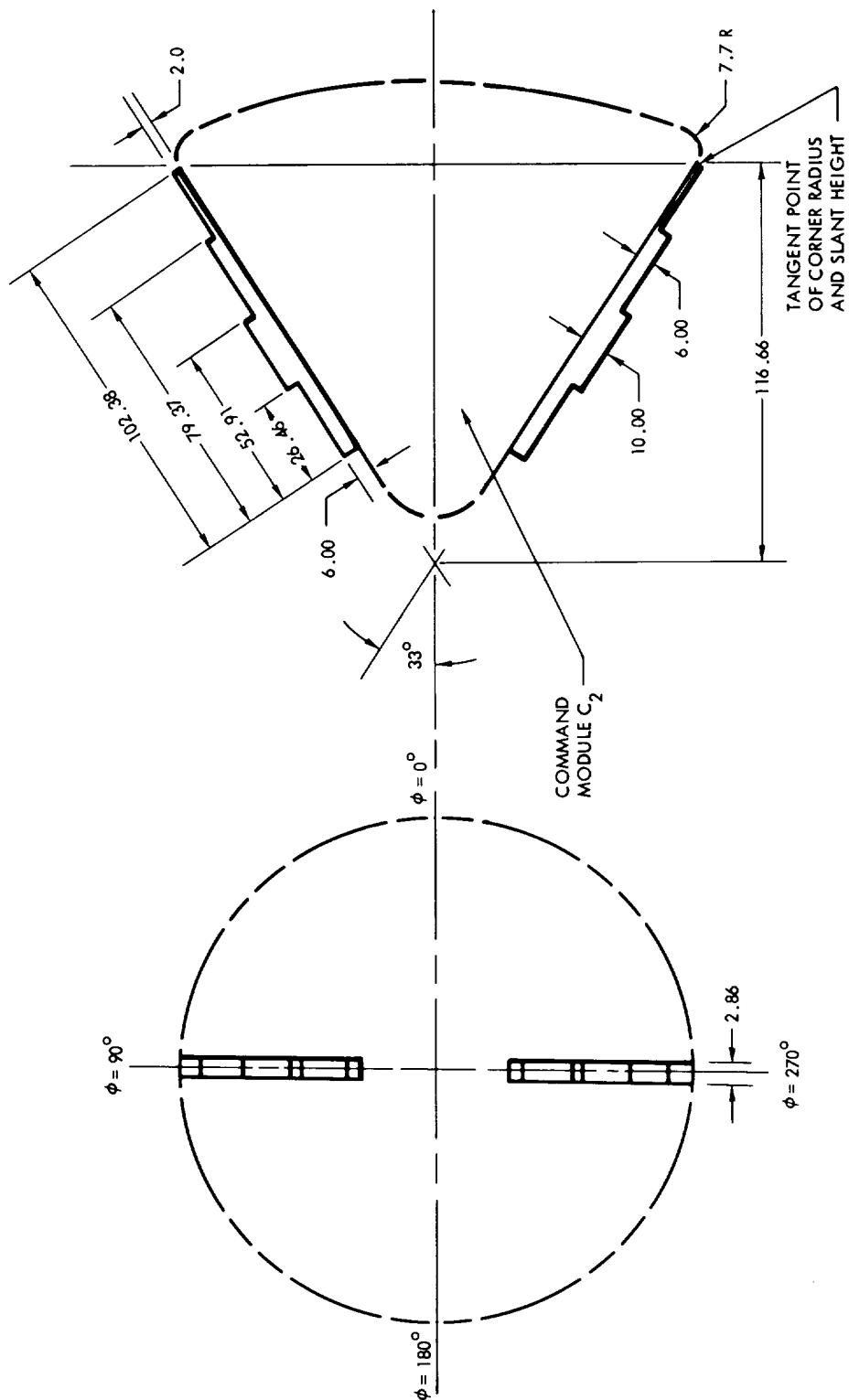
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

SPOILER L<sub>25</sub>

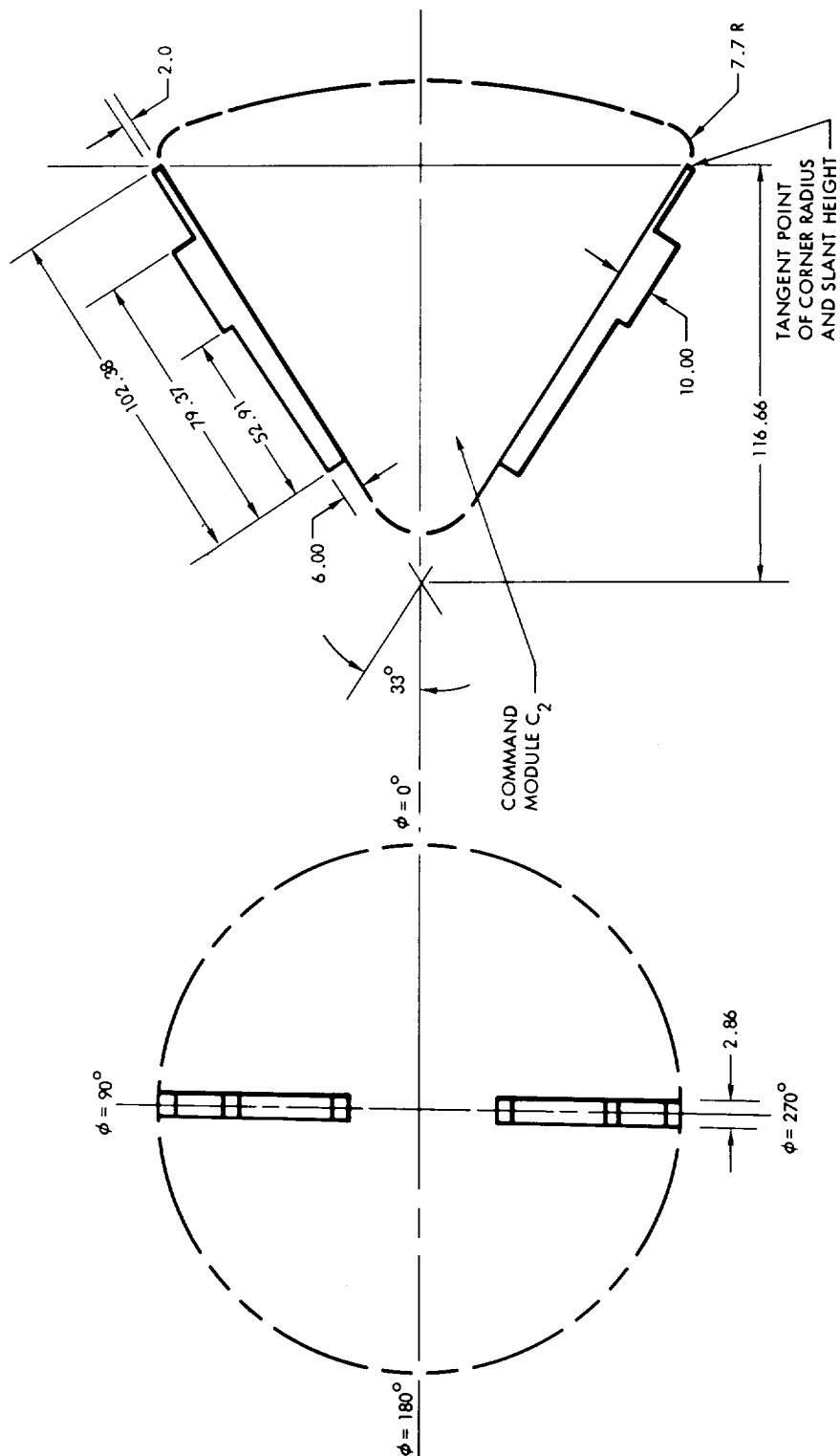
FULL-SCALE DIMENSIONS IN INCHES



DRAWING NOT TO SCALE

SPOILER L<sub>26</sub>

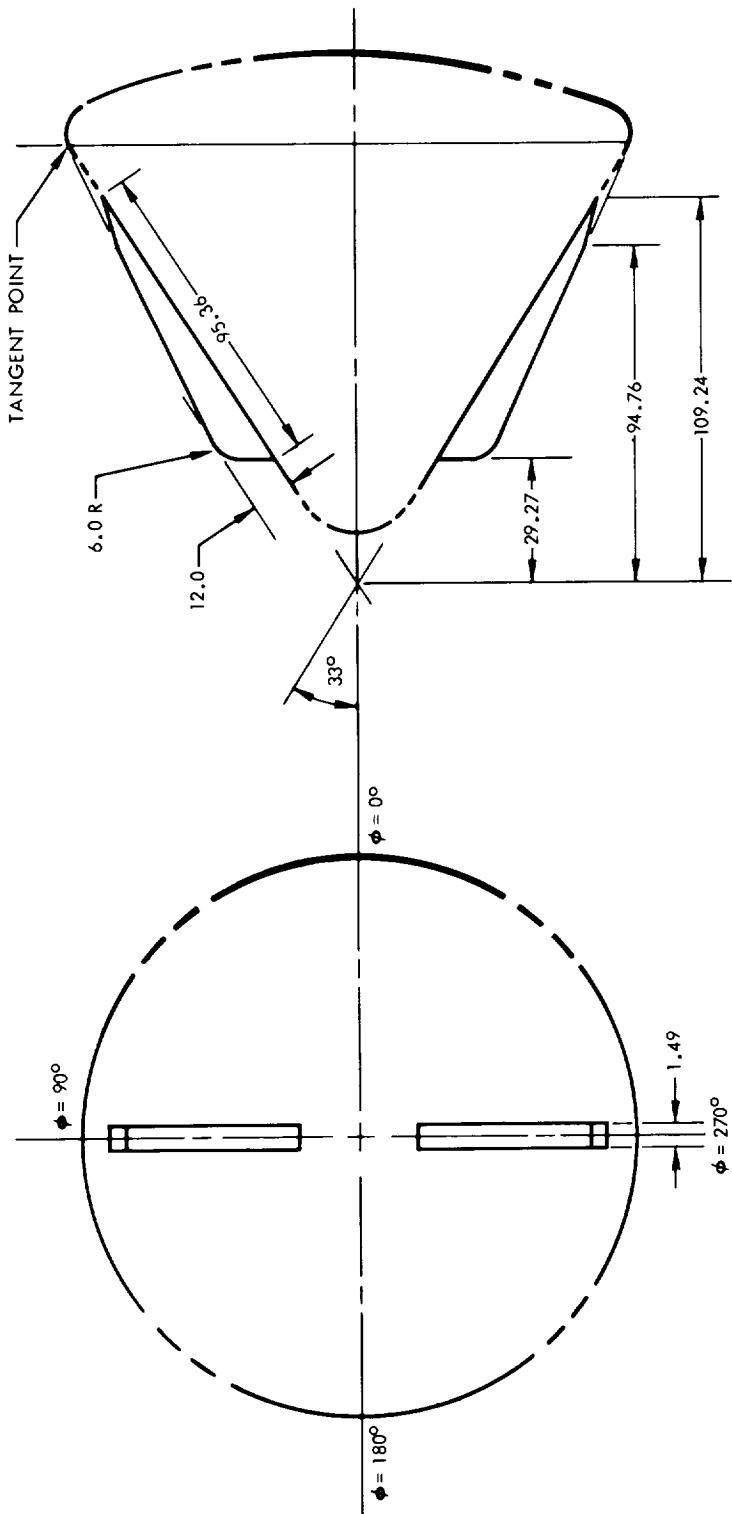
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

SPOILER L 27

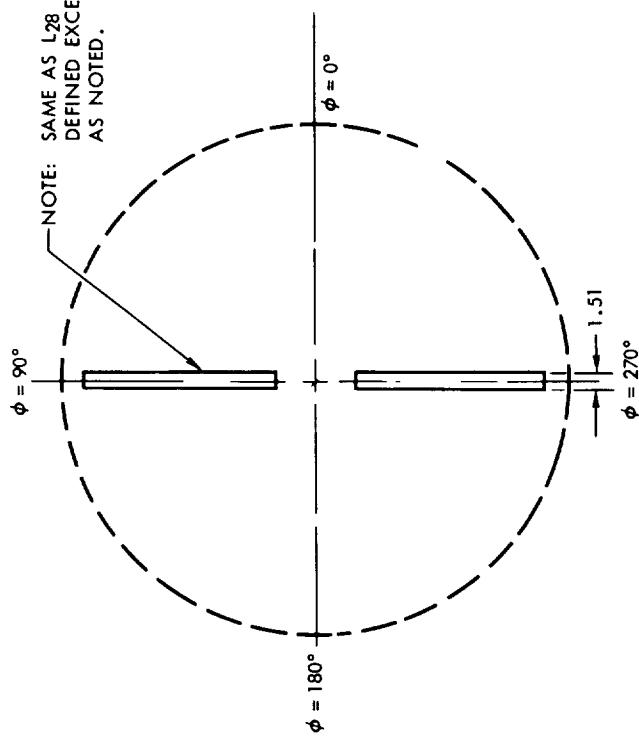
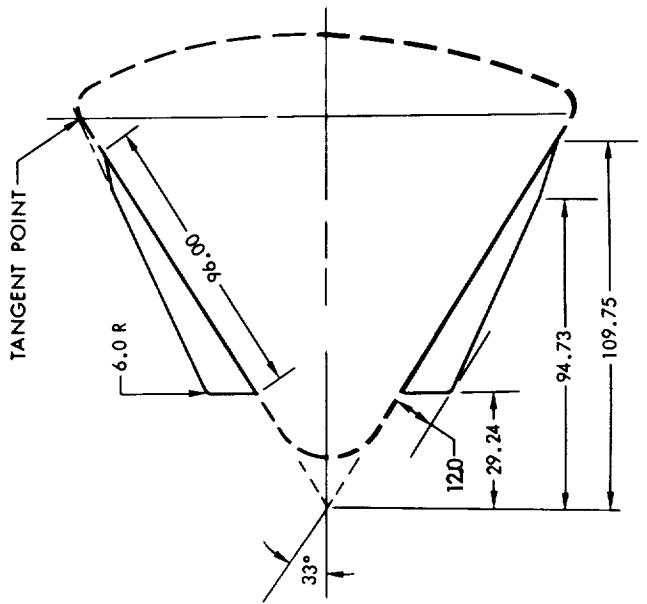
DRAWING NOT TO SCALE



SPOILER - L28  
(DEFINED)

FULL-SCALE DIMENSIONS IN INCHES

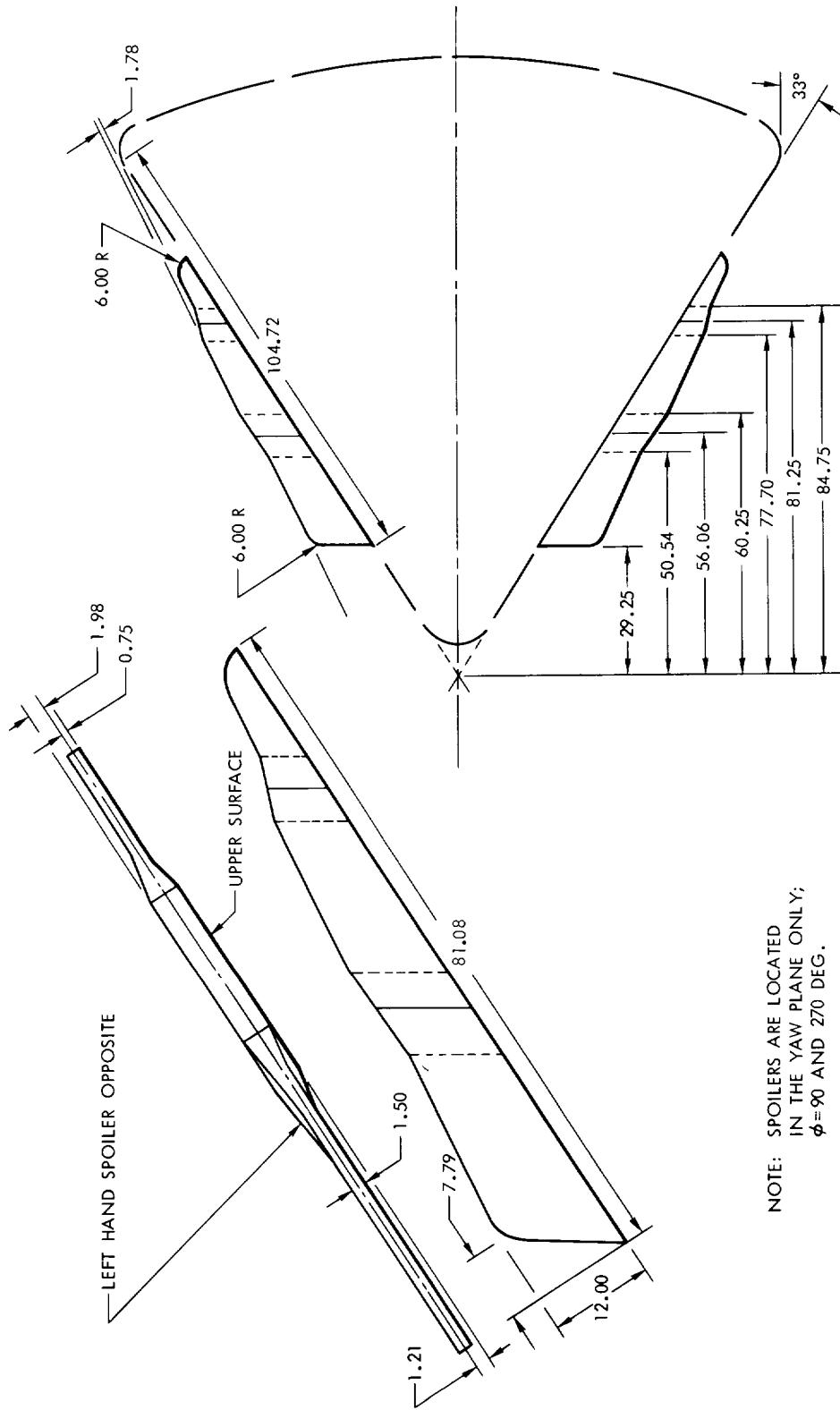
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

SPOILER L28  
(FS-3 AND PS-3)

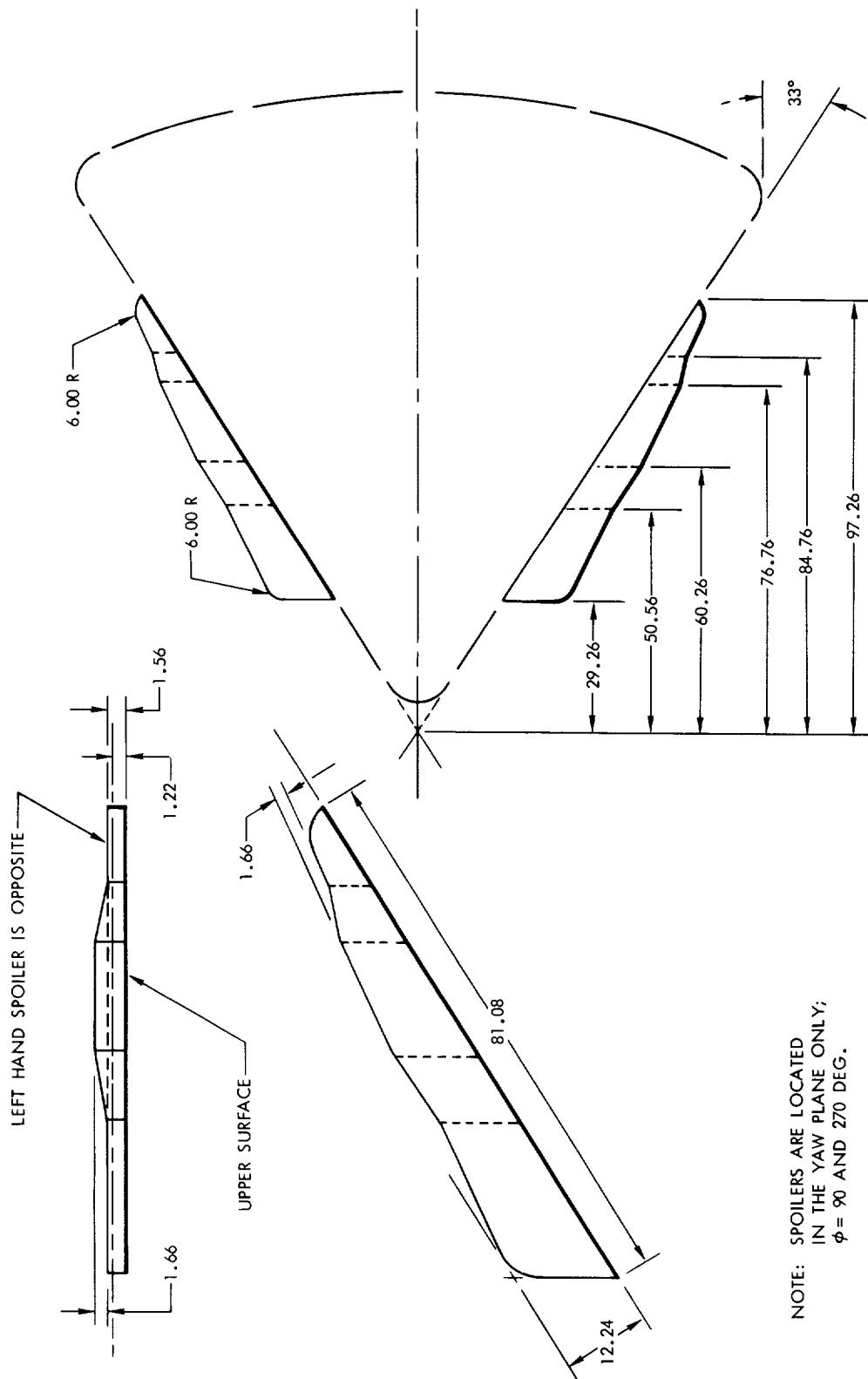
FULL-SCALE DIMENSIONS IN INCHES



DRAWING NOT TO SCALE

SPOILER L29

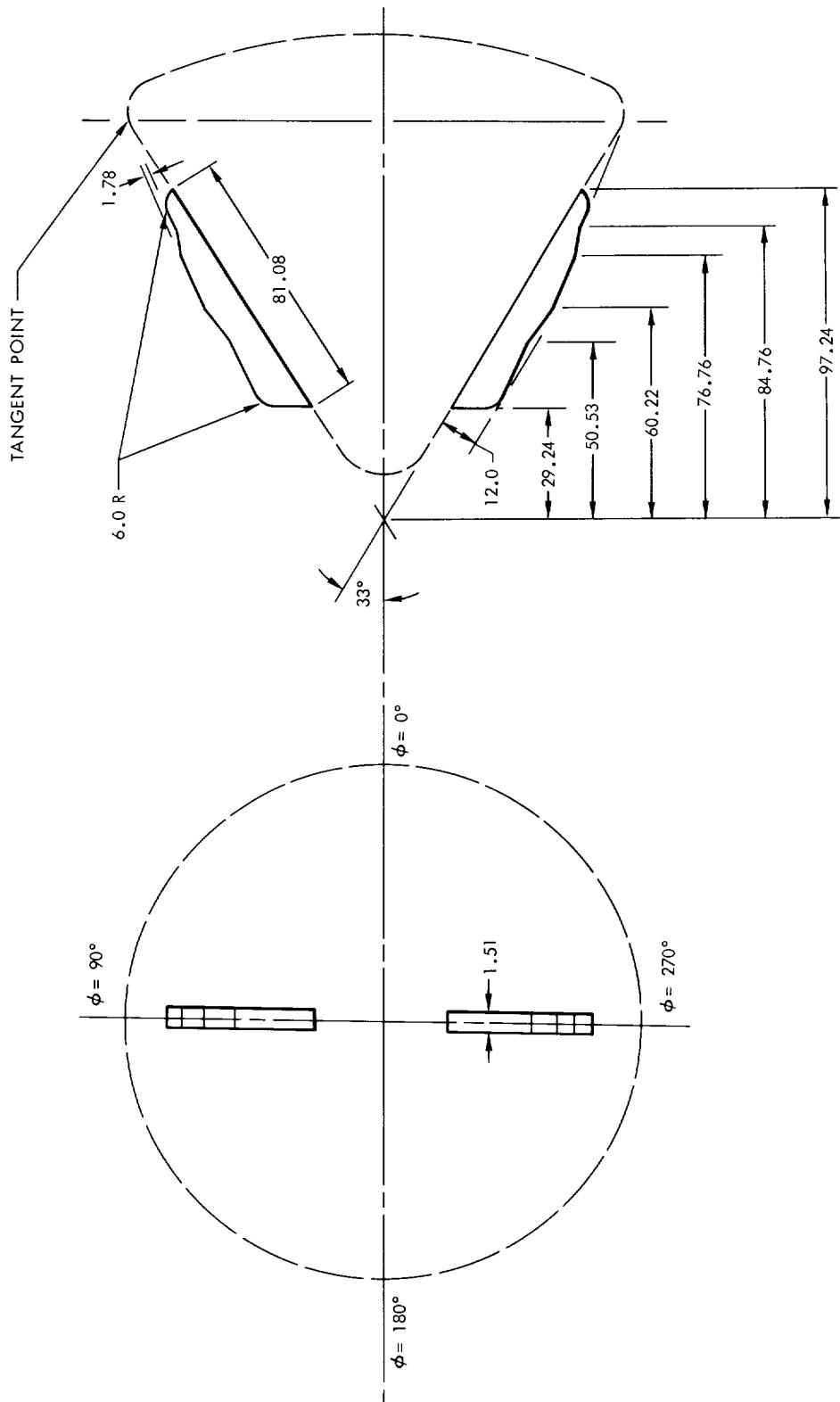
FULL-SCALE DIMENSIONS IN INCHES



DRAWING NOT TO SCALE

SPOILER L30

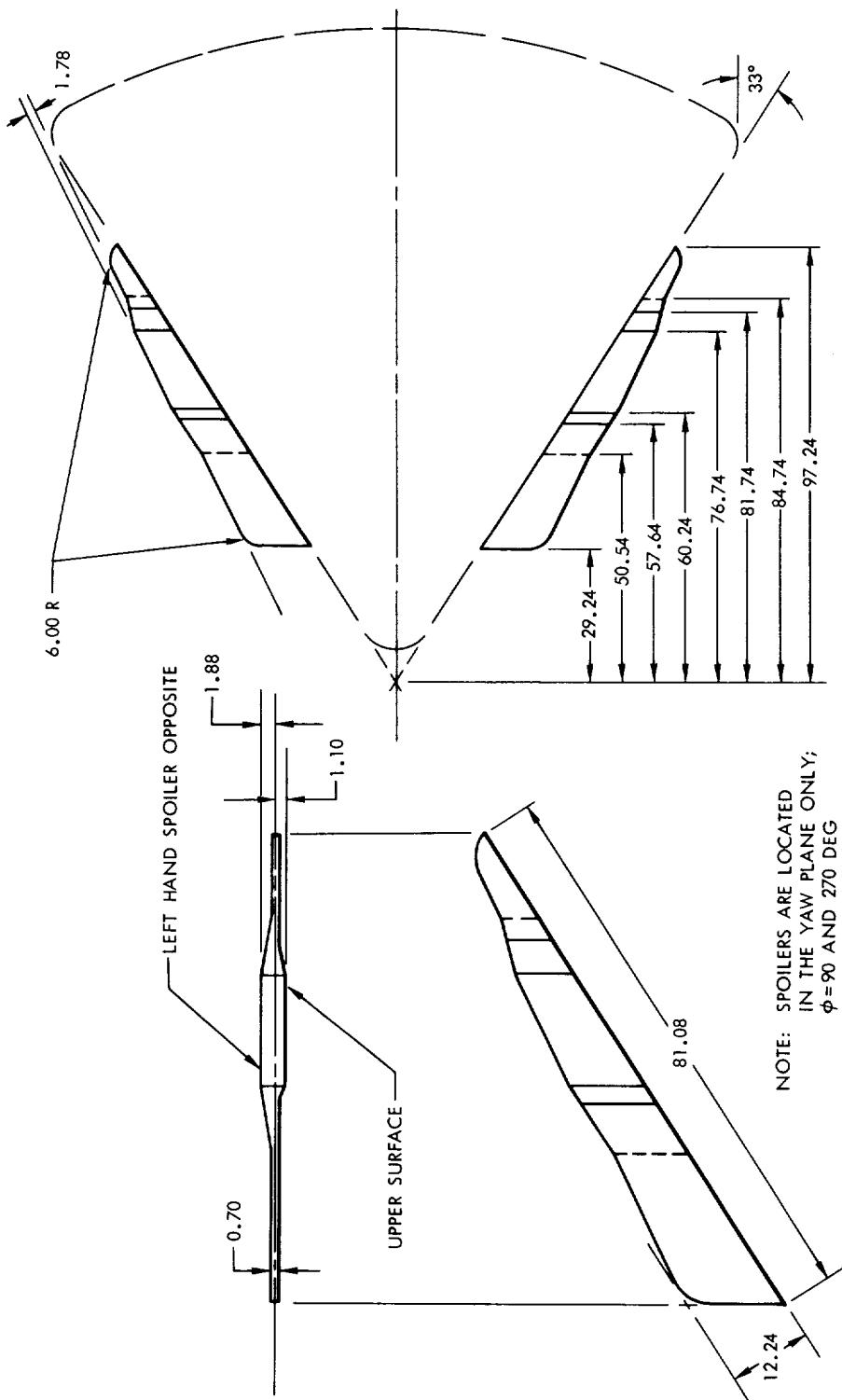
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

SPOILER L<sub>31</sub>

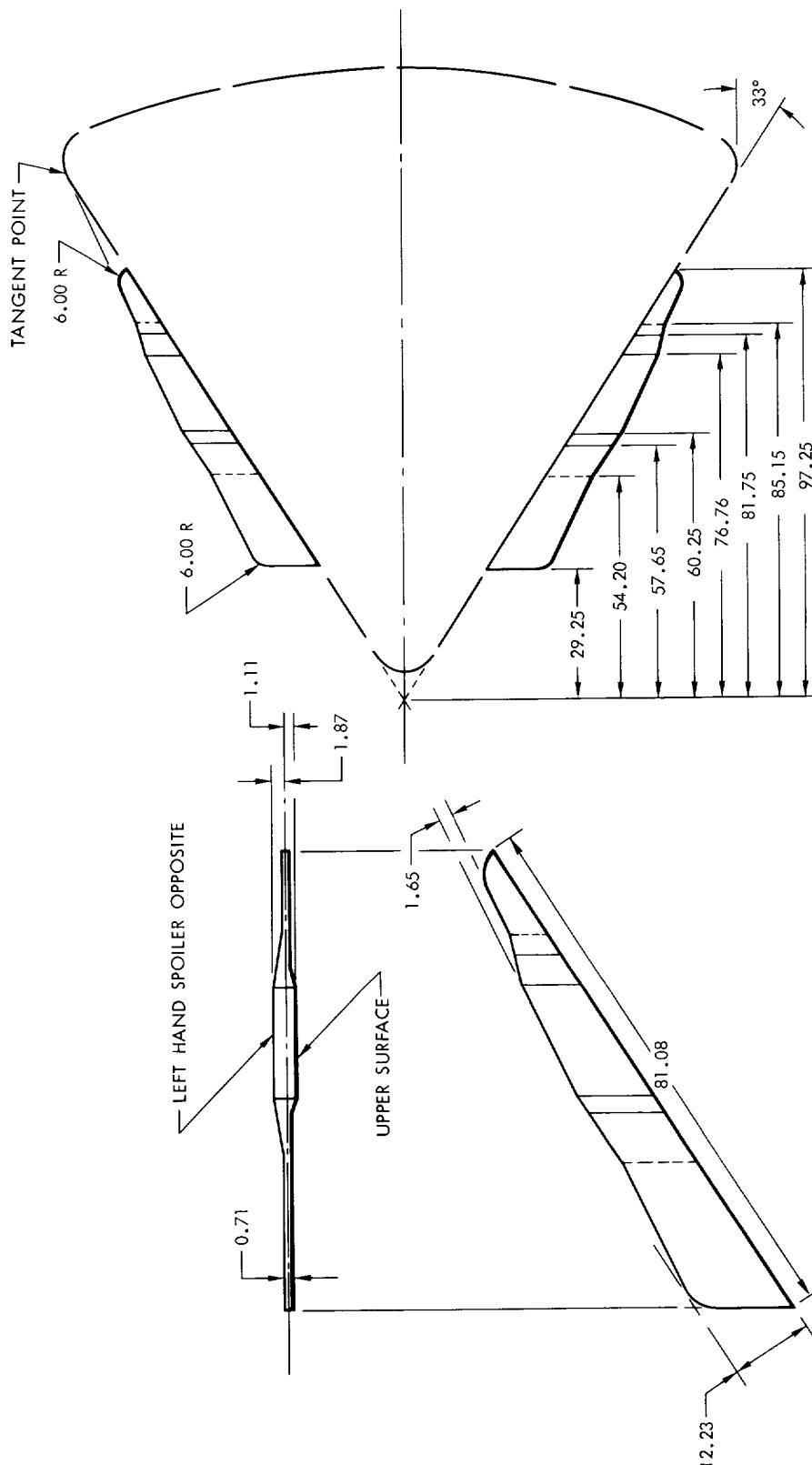
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

SPOILER L32

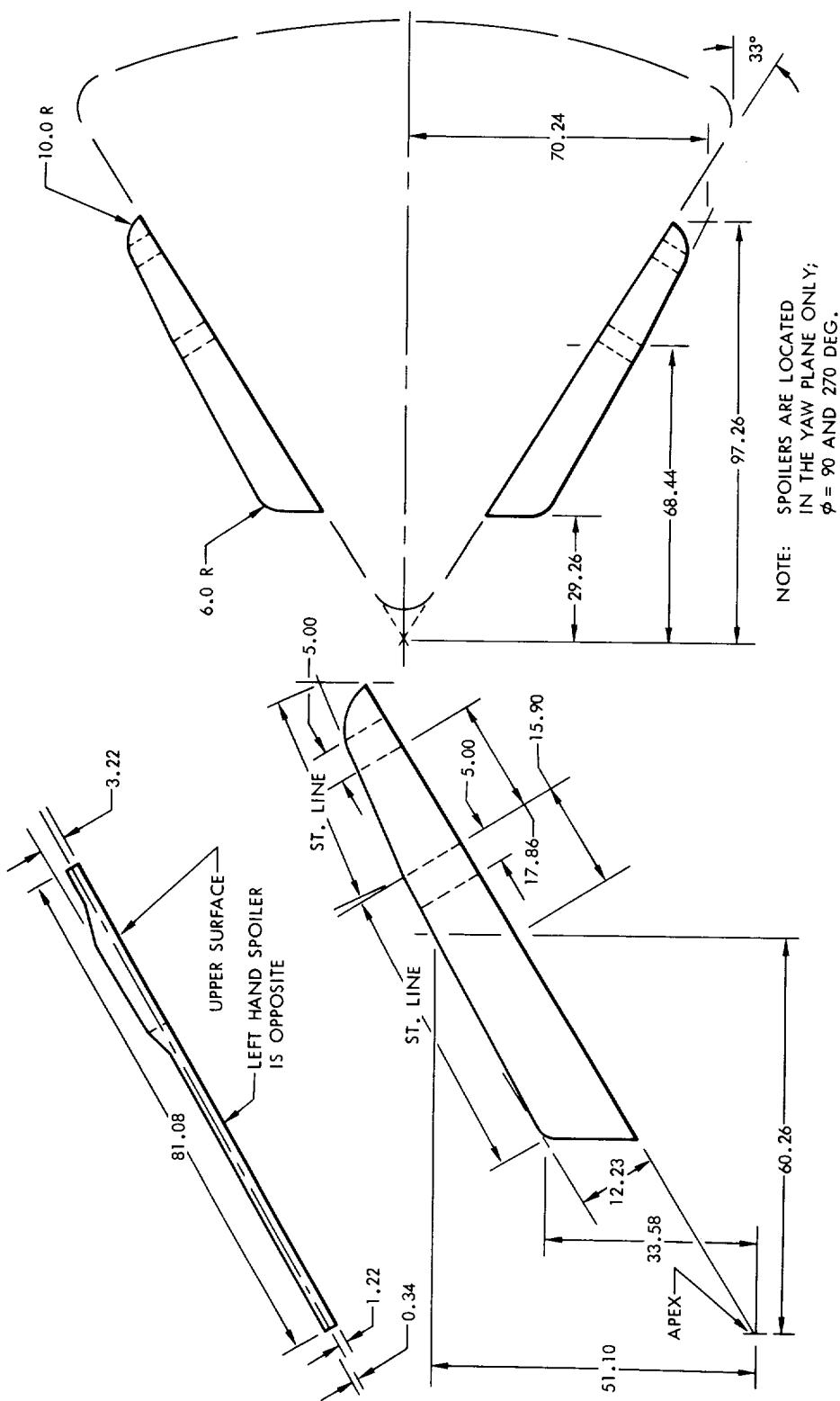
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

SPOILER L33

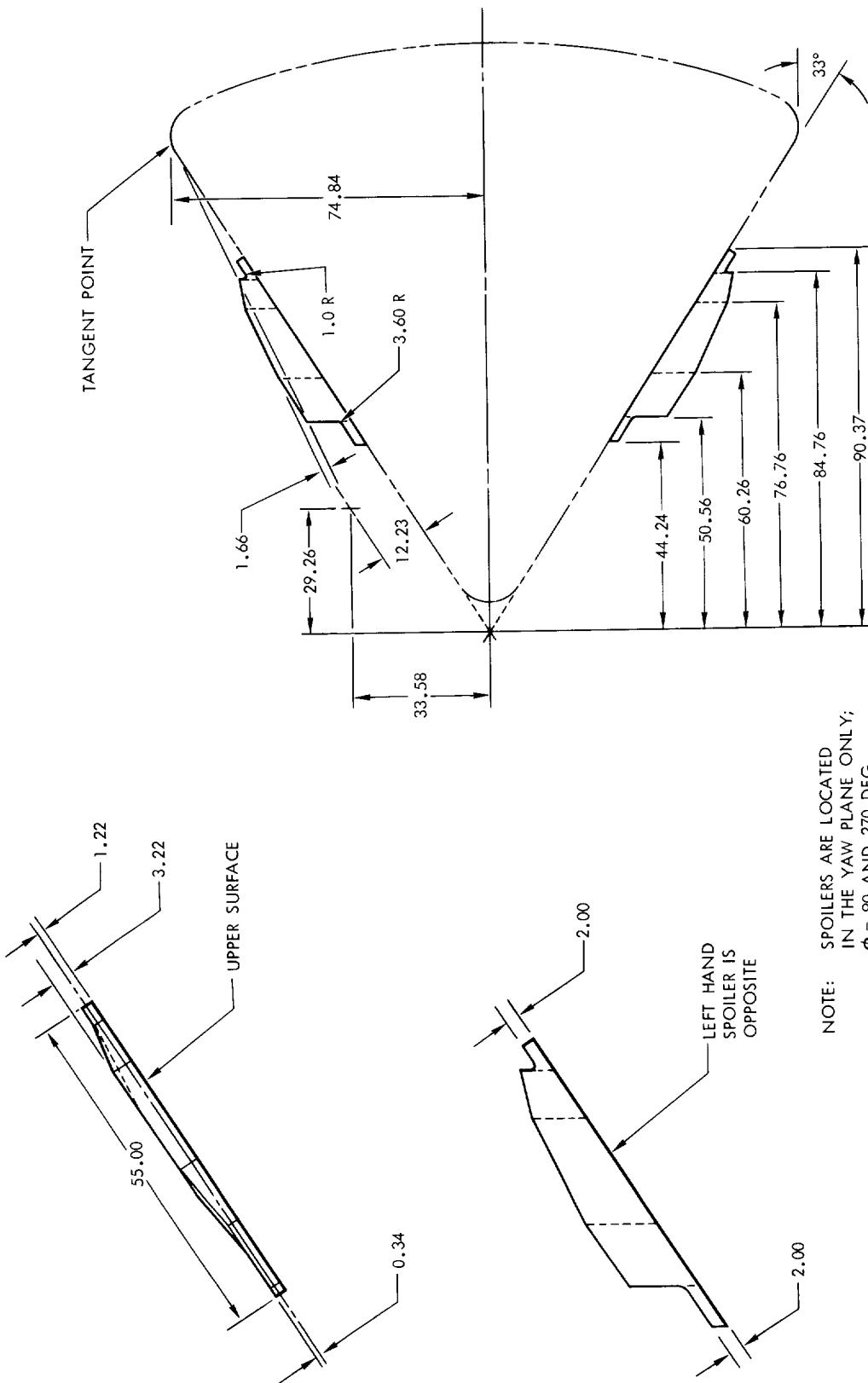
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

SPOILER L34

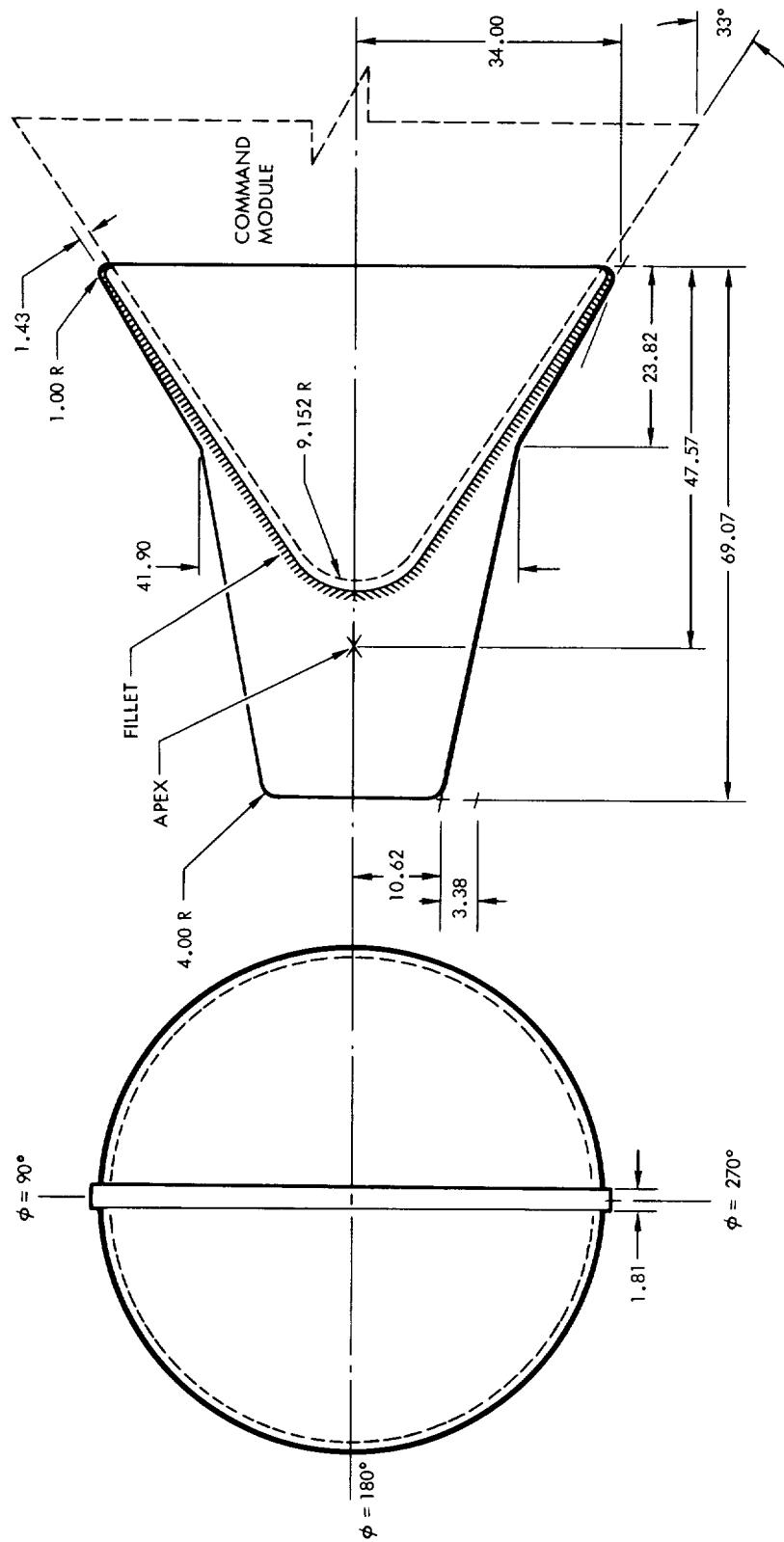
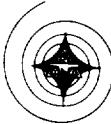


NOTE: SPOILERS ARE LOCATED  
IN THE YAW PLANE ONLY;  
 $\phi = 90$  AND  $270$  DEG.

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

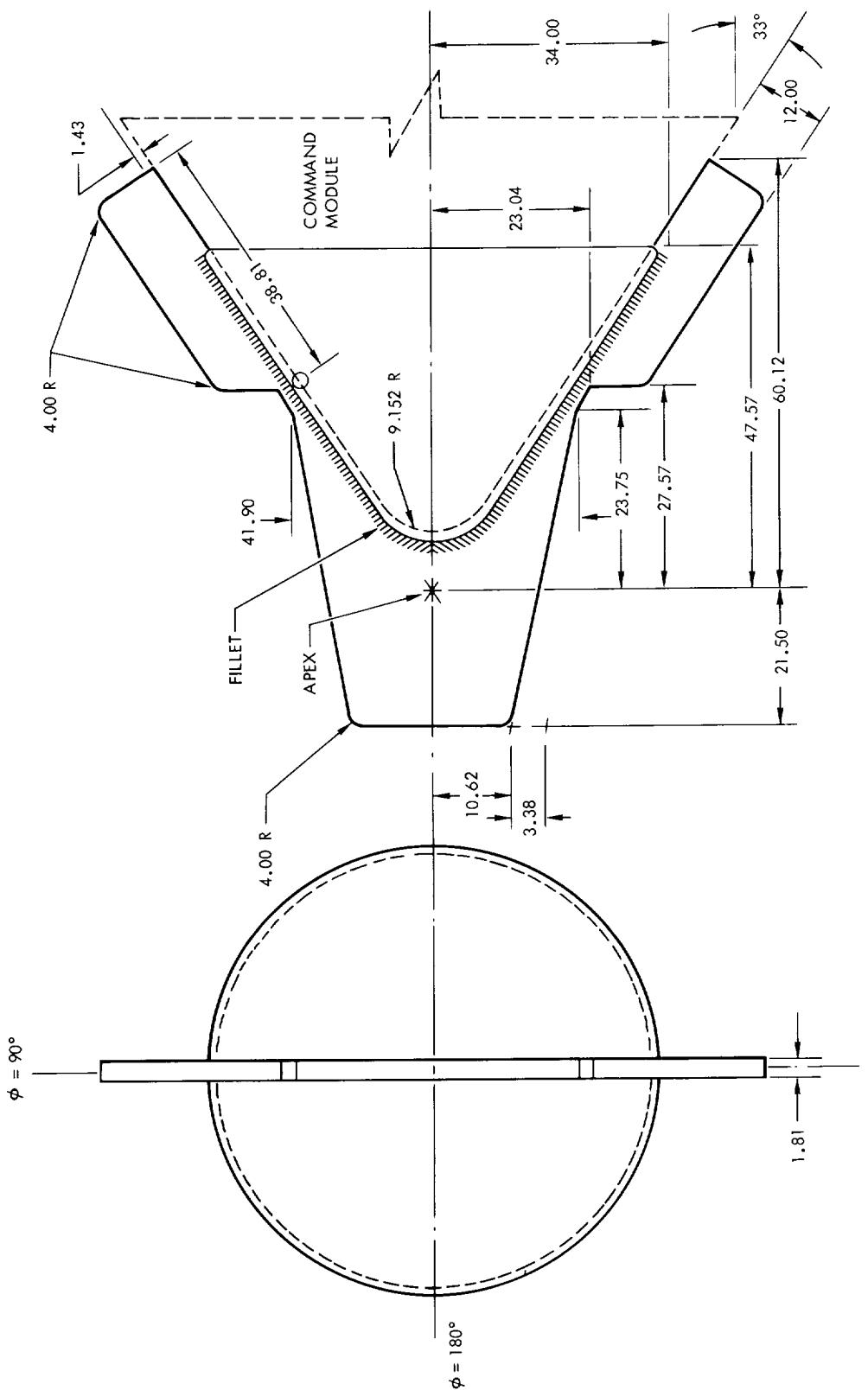
SPOILER L5



DRAWING NOT TO SCALE

SPOILER L36

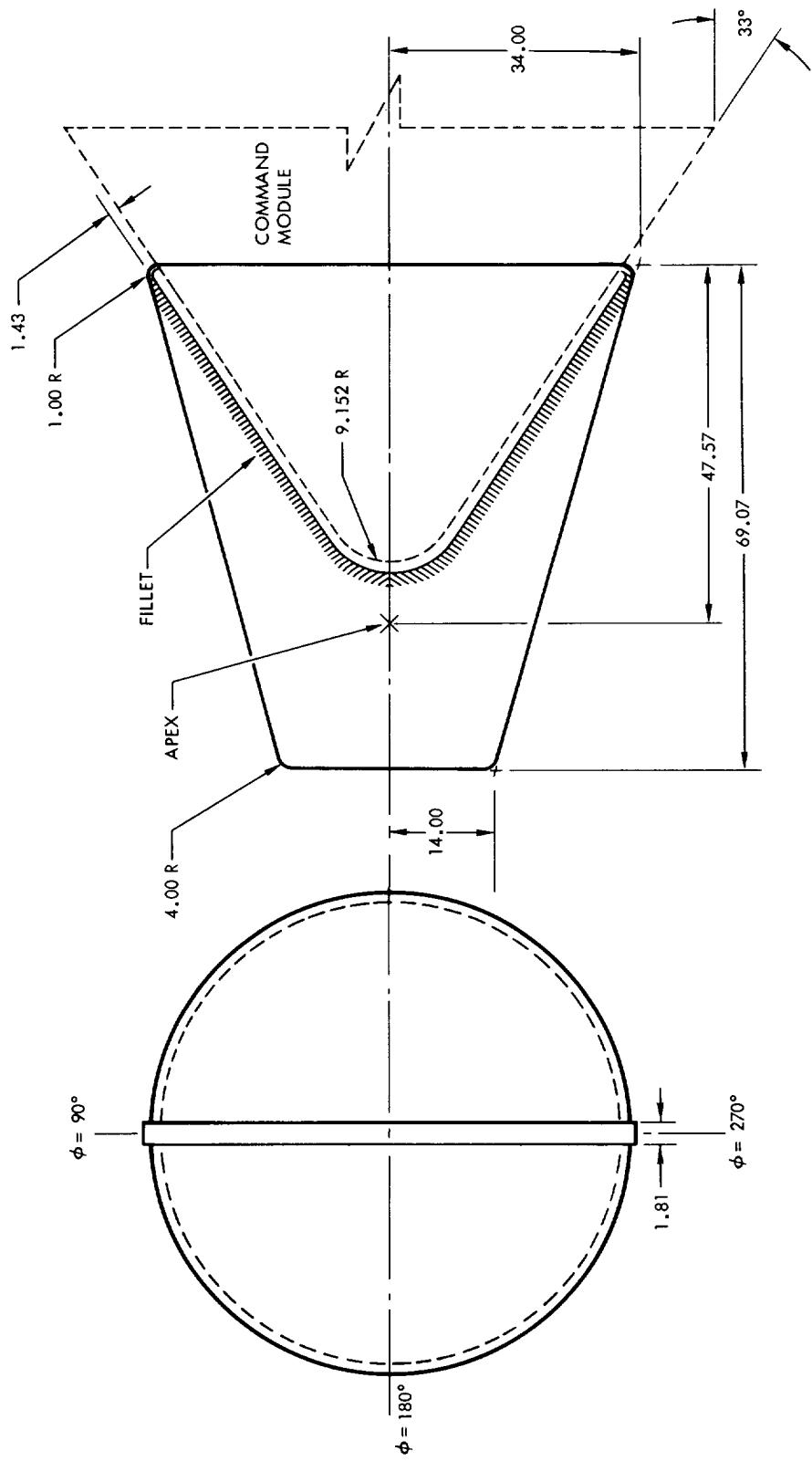
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

SPOILER L37

DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

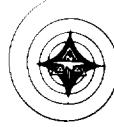
SPOILER L38

FULL-SCALE DIMENSIONS IN INCHES



## SUMMARY OF DROGUE CHUTE VARIABLES

Q No.	Gores		Chute			Length of Each Nylon Cord Suspension Line (ft)
	No.	Material	Porosity (%)	Equivalent Diameter - $D_o$ (ft)	Disreefed Diameter - D (ft)	
1	16	Nylon	23	14.0	13.69	154.0
2	16	Nylon	29	13.4	13.48	142.0
3	20	Nylon	20	13.7	13.22	149.0
4	20	Mylar	20	13.7	12.92	147.5
5	26	Nylon	26	13.9	14.10	152.0
6	23	Nylon	23	13.1	12.81	135.0
7	29	Nylon	29	13.4	13.69	142.0
8	20	Nylon	20	13.7	13.22	149.0
9	26	Nylon	26	13.9	14.10	152.0
10	23	Nylon	23	12.4	12.15	121.0
11	23	Mylar	20	12.4	12.15	121.0
12	26	Nylon	26	13.7	12.92	147.5
13	26	Nylon	26	12.5	11.94	123.0
14	23	Nylon	23	16.1	15.79	204.5
15	29	Nylon	29	14.2	13.69	158.0
16	26	Nylon	26	14.1	13.22	156.0
17	23	Nylon	23	12.5	12.40	123.0
18	26	Mylar	26	13.7	12.92	147.5
19	29	Nylon	29	12.3	11.94	118.0
20	26	Mylar	26	13.7	12.92	147.5
21	26	Nylon	26	16.1	15.38	204.1
22	26	Nylon	26	16.1	15.38	204.1
23	29	Nylon	29	12.3	11.94	118.0
24	20	Nylon	20	16.0	15.38	201.2
25	29	Nylon	29	16.2	15.38	207.3
26	29	Mylar	30	16.2	15.38	207.3
27	20	Nylon	20	13.7	12.92	147.4
28	20	Nylon	20	13.7	15.38	147.5
29	29	Nylon	29	13.7	13.7	147.5
30	16	Nylon	16	16.0	16.0	201.2
31	16	Nylon	16	15.3	15.38	183.0



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q	Drogue chute - There are 16 nylon gores to a complete chute. Porosity = 23%. Chute equivalent diameter, $D_o = 14.0$ ft; disreefed diameter, $D = 13.69$ ft; area, $S_o = 154$ sq ft. Chute is reefed 11% of diameter D. Length of each nylon cord suspension line = 13.7 ft.	W. L. FSC-1 W. L. FDC-1	Northrop Ventura PDS-1392	NAAL-489 NAAL-490	NAAL-489 NAAL-490	None SID 63-274 None SID 63-279
Q <sub>2</sub>	There are 16 nylon gores to a complete chute. Porosity = 29%. Chute equivalent diameter, $D_o = 13.4$ ft; disreefed diameter, $D = 13.48$ ft; area, $S_o = 142.0$ sq ft. Chute is reefed 11% of diameter D. Length of each nylon cord suspension line = 13.7 ft.	W. L. FSC-1	Northrop Ventura PDS-1398	NAAL-489	NAAL-489	None SID 63-274
Q <sub>3</sub>	There are 16 nylon gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o = 13.7$ ft; disreefed diameter, $D = 13.22$ ft; area, $S_o = 149.0$ sq ft. Chute is reefed 11% of diameter D. Length of each nylon cord suspension line = 13.7 ft.	W. L. FSC-1	Northrop Ventura	NAAL-489	NAAL-489	None SID 63-274



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q <sub>4</sub>	There are 16 mylar gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o$ = 13.7 ft; disreefed diameter, $D$ = 12.92 ft; area, $S_o$ = 147.5 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 13.7 ft.	W. L.	FSC-1	None	NAAL-489	None SID 63-274
Q <sub>5</sub>	There are 16 nylon gores to a complete chute. Porosity = 26%. Chute equivalent diameter, $D_o$ = 13.9 ft; disreefed diameter, $D$ = 14.10 ft; area, $S_o$ = 152.0 sq ft. Chute is reefed 11% of diameter D. Length of each nylon cord suspension line = 13.7 ft.	W. L.	FSC-1	Northrop Ventura PDS-1395	NAAL-489	None SID 63-274
Q <sub>6</sub>	There are 16 nylon gores to a complete chute. Porosity = 23%. Chute equivalent diameter, $D_o$ = 13.1 ft; disreefed diameter, $D$ = 12.81 ft; area, $S_o$ = 135.0 sq ft. Length of each nylon cord suspension line = 13.7 ft.	W. L.	FSC-1	Northrop Ventura PDS-1392	NAAL-489	None SID 63-274



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q <sub>7</sub>	There are 16 nylon gores to a complete chute. Porosity = 29%. Chute equivalent diameter, $D_o$ = 13.4 ft; disreefed diameter, D = 13.69 ft; area, $S_o$ = 142.0 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 13.7 ft.	W. L. FSC-1	Northrop Ventura PDS-1398		NAAL-489	None SID 63-274
Q <sub>8</sub>	There are 16 nylon gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o$ = 13.7 ft; disreefed diameter, D = 13.22 ft; area, $S_o$ = 149.0 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 13.7 ft.	W. L. FDC-1	Northrop Ventura PDS-1378		NAAL-489	None SID 63-274
Q <sub>9</sub>	There are 16 nylon gores to a complete chute. Porosity = 26%. Chute equivalent diameter, $D_o$ = 13.9 ft; disreefed diameter, D = 14.10 ft; area, $S_o$ = 152.0 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 13.7 ft.	W. L. FSC-1	Northrop Ventura PDS-1395		NAAL-489	None SID 63-274



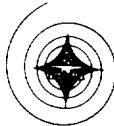
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q <sub>10</sub>	There are 16 nylon gores to a complete chute. Porosity = 23%. Chute equivalent diameter, $D_o$ = 12.4 ft; disreefed diameter, $D$ = 12.15 ft; area, $S_o$ = 121.0 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 12.2 ft.	W. L. FSC-1	Northrop Ventura PDS-1391		NAAL-489	None SID 63-274
Q <sub>11</sub>	There are 16 nylon gores to a complete chute. Porosity = 23%. Chute equivalent diameter, $D_o$ = 12.4 ft; disreefed diameter, $D$ = 12.15 ft; area, $S_o$ = 121.0 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 12.2 ft.	W. L. FSC-1	Northrop Ventura PDS-1391		NAAL-489	None SID 63-274
Q <sub>12</sub>	There are 16 mylar gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o$ = 13.7 ft; disreefed diameter, $D$ = 12.92 ft; area, $S_o$ = 147.5 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 13.7 ft.	W. L. FSC-1	None		NAAL-489	None SID 63-274



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q13	There are 16 nylon gores to a complete chute. Porosity = 26%. Chute equivalent diameter, $D_o$ = 12.5 ft; disreefed diameter, $D$ = 11.94 ft; area, $S_o$ = 123.0 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 12.2 ft.	W. L. FSC-1	Northrop Ventura PDS-1394		NAAL-489	None SID 63-274
Q14	There are 16 nylon gores to a complete chute. Porosity = 23%. Chute equivalent diameter, $D_o$ = 16.1 ft; disreefed diameter, $D$ = 15.79 ft; area, $S_o$ = 204.5 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 16 ft.	W. L. FSC-1 W. L. FDC-1	Northrop Ventura PDS-1393		NAAL-489 NAAL-490	None SID 63-274 None SID 63-279
Q15	There are 16 nylon gores to a complete chute. Porosity = 29%. Chute equivalent diameter, $D_o$ = 14.2 ft; disreefed diameter, $D$ = 13.69 ft; area, $S_o$ = 158.0 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 13.7 ft.	W. L. FSC-1	Northrop Ventura PDS-1398		NAAL-489	None SID 63-274



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q16	There are 16 nylon gores to a complete chute. Porosity = 26%. Chute equivalent diameter, $D_o$ = 14.1 ft; disreefed diameter, $D$ = 13.22 ft; area, $S_o$ = 156.0 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 13.7 ft.	W. L.	FSC-1	Northrop Ventura PDS-1395	NAAL-489	None SID 63-274
Q17	There are 16 nylon gores to a complete chute. Porosity = 23%. Chute equivalent diameter, $D_o$ = 12.5 ft; disreefed diameter, $D$ = 12.40 ft; area, $S_o$ = 123.0 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 12.2 ft.	W. L.	FSC-1	Northrop Ventura PDS-1391	NAAL-489 NAAL-490	None SID 63-274 None SID 63-279
Q18	There are 16 mylar gores to a complete chute. Porosity = 26%. Chute equivalent diameter, $D_o$ = 13.7 ft; disreefed diameter, $D$ = 12.92 ft; area, $S_o$ = 147.5 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 13.7 ft.	W. L.	FSC-1	None	NAAL-489	None SID 63-274
		W. L.	FDC-1		NAAL-490	None SID 63-279
		J. K.	FDC-1		LTDT	SID 62-1346
		W. L.	FDC-1		49(16 by 16)	SID 63-279
					NAAL-492	None SID 63-279



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q <sub>19</sub>	There are 16 nylon gores to a complete chute. Porosity = 29%. Chute equivalent diameter, $D_o$ = 12.3 ft; disreefed diameter, $D$ = 11.94 ft; area, $S_o$ = 118.0 sq ft. Chute is reefed 11% of diameter D. Length of each nylon cord suspension line = 12.2 ft.	W. L. FSC-1	Northrop Ventura PDS-1397	NAAJL-489	None SID 63-274	
Q <sub>20</sub>	There are 16 mylar gores to a complete chute. Porosity = 26%. Chute equivalent diameter, $D_o$ = 13.7 ft; disreefed diameter, $D$ = 12.92 ft; area, $S_o$ = 147.5 sq ft. Chute is reefed 11% of diameter D. Length of each nylon cord suspension line = 13.7 ft.	W. L. FSC-1 W. L. FDC-1	None	NAAJL-489 NAAJL-490	None None SID 63-274 SID 63-279	
Q <sub>21</sub>	There are 16 nylon gores to a complete chute. Porosity = 26%. Chute equivalent diameter, $D_o$ = 16.1 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 204.1 sq ft. Chute is reefed 11% of diameter D. Length of each nylon cord suspension line = 16.0 ft.	W. L. FSC-1	Northrop Ventura PDS-1396	NAAJL-489	None SID 63-274	

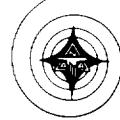


Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q22	There are 16 nylon gores to a complete chute. Porosity = 26%. Chute equivalent diameter, $D_o$ = 16.1 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 204.1 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 16.0 ft.	W. L. FSC-1	Northrop Ventura PDS-1396		NAAL-489	None SID 63-274
Q23	There are 16 nylon gores to a complete chute. Porosity = 29%. Chute equivalent diameter, $D_o$ = 12.3 ft; disreefed diameter, $D$ = 11.94 ft; area, $S_o$ = 118.0 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 12.2 ft.	W. L. FSC-1	Northrop Ventura PDS-1397		NAAL-489	None SID 63-274
Q24	There are 16 nylon gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o$ = 16.0 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 201.2 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 16.0 ft.	W. L. FSC-1	Northrop Ventura PDS-1397		NAAL-489	None SID 63-274



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q 25	There are 16 nylon gores to a complete chute. Porosity = 29%. Chute equivalent diameter, $D_o$ = 16.2 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 207.3 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 16.0 ft.	W. L.	FSC-1	Northrop Ventura PDS-1399	NAAL-489	None SID 63-274
Q 26	There are 16 nylon gores to a complete chute. Porosity = 29%. Chute equivalent diameter, $D_o$ = 16.2 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 207.3 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 16.0 ft.	W. L.	FSC-1	Northrop Ventura PDS-1399	NAAL-489	None SID 63-274
Q 27	There are 16 mylar gores to a complete chute. Porosity = 30%. Chute equivalent diameter, $D_o$ = 13.7 ft; disreefed diameter, $D$ = 12.92 ft; area, $S_o$ = 147.4 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 13.7 ft.	W. L.	FDC-1	None	NAAL-492	None SID 63-279



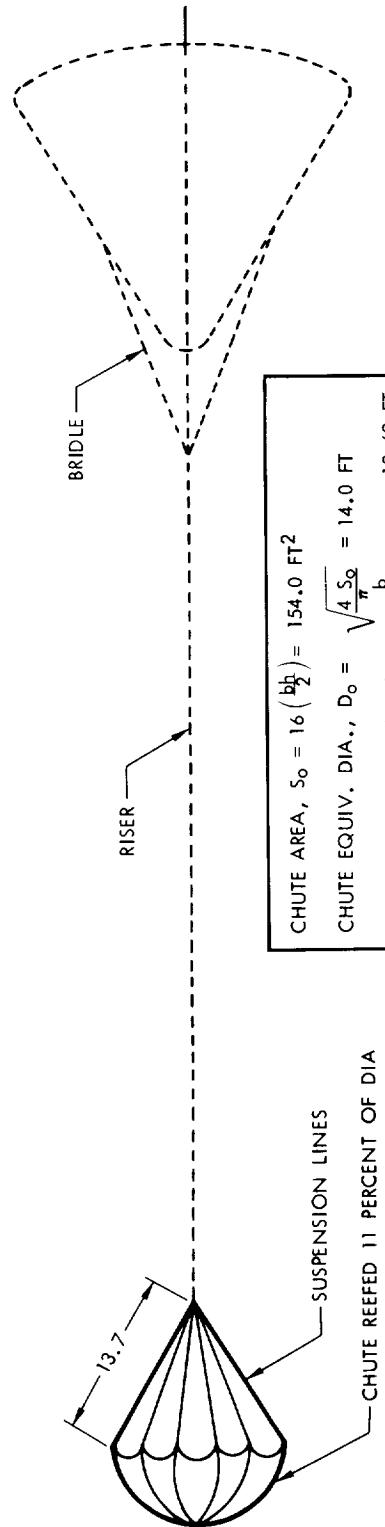
## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q28	There are 16 nylon gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o$ = 13.7 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 147.5 sq ft. Chute is reefed 11% of diameter $D$ . Length of each nylon cord suspension line = 13.7 ft.	J. K.	FDC-1	Northrop Ventura PDS-1378	LTDT 49(16 by 16)	SID 62-1346 SID 63-319
Q29	There are 16 nylon gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o$ = 13.7 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 147.5 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 13.7 ft.	J. K.	FDC-1	Northrop Ventura PDS-1378	LTDT 49(16 by 16)	SID 62-1346 SID 63-319
Q30	There are 16 nylon gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o$ = 16.0 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 201.2 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 16.0 ft.	J. K.	FDC-1	Northrop Ventura PDS-1379	LTDT 49(16 by 16)	SID 62-1346 SID 63-319

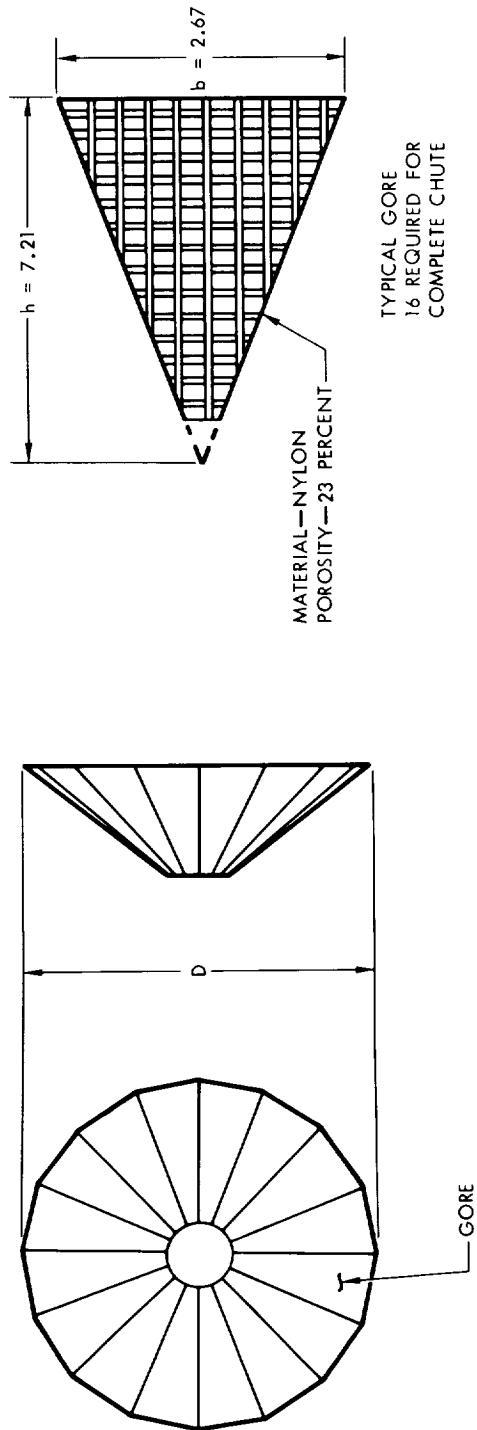


Apollo Wind Tunnel Model Nomenclature

Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
Q31	There are 16 nylon gores to a complete chute. Porosity = 20%. Chute equivalent diameter, $D_o$ = 15.27 ft; disreefed diameter, $D$ = 15.38 ft; area, $S_o$ = 183.0 sq ft. Chute is disreefed. Length of each nylon cord suspension line = 16.0 ft.	W. L. FDC-1	Northrop Ventura PDS-1379-2	NAAL-492	None SID 63-279	



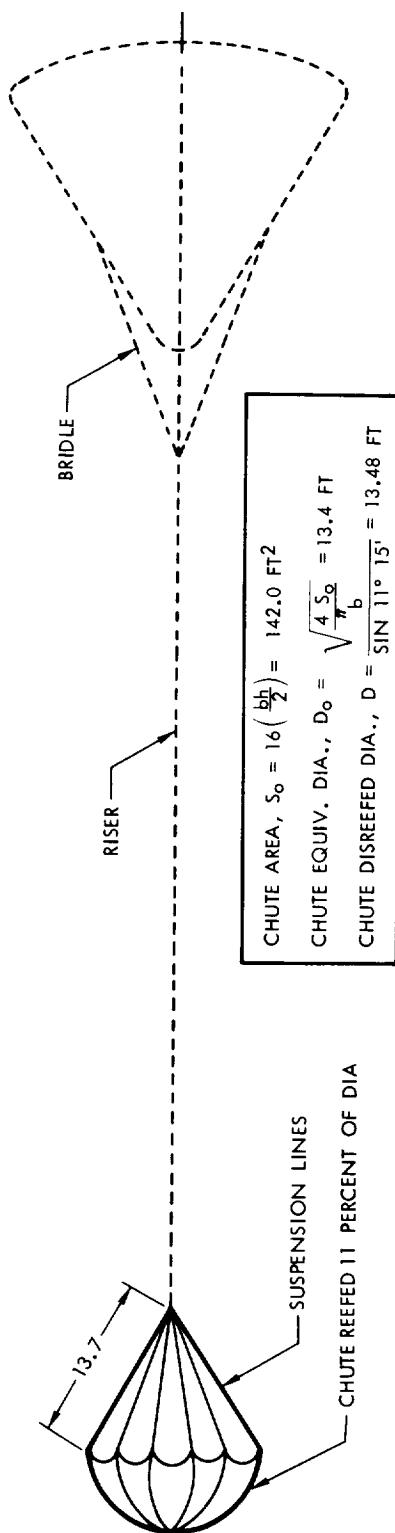
$$\begin{aligned} \text{CHUTE AREA, } S_0 &= 16 \left( \frac{\pi b^2}{2} \right) = 154.0 \text{ FT}^2 \\ \text{CHUTE EQUIV. DIA., } D_o &= \sqrt{4 \frac{S_0}{\pi}} = 14.0 \text{ FT} \\ \text{CHUTE DISREEFED DIA., } D &= \frac{b}{\sin 11^\circ 15'} = 13.69 \text{ FT} \end{aligned}$$



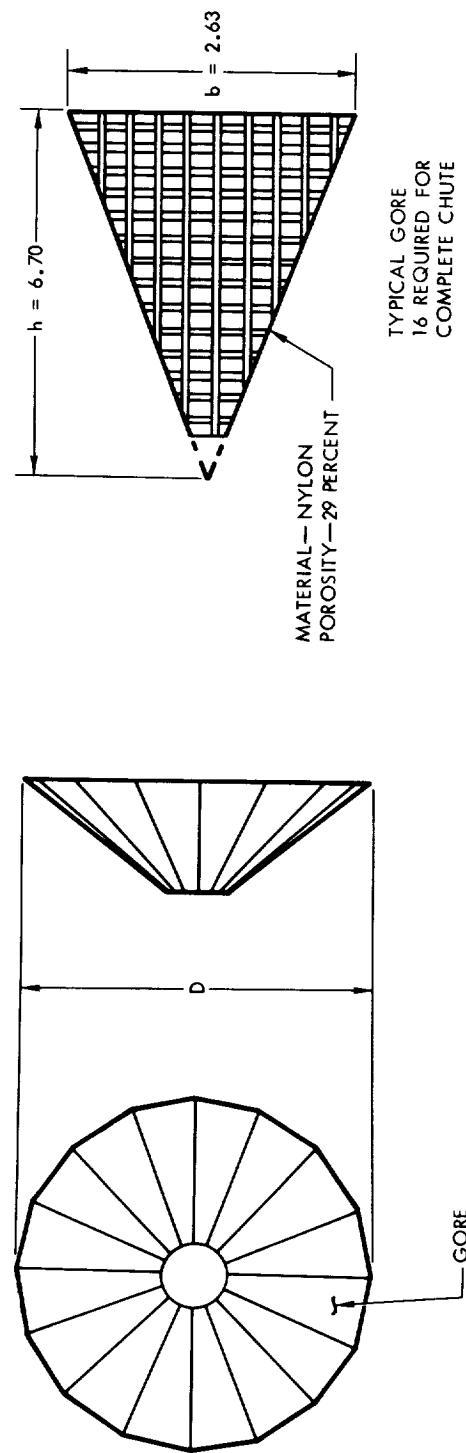
FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q

DRAWING NOT TO SCALE



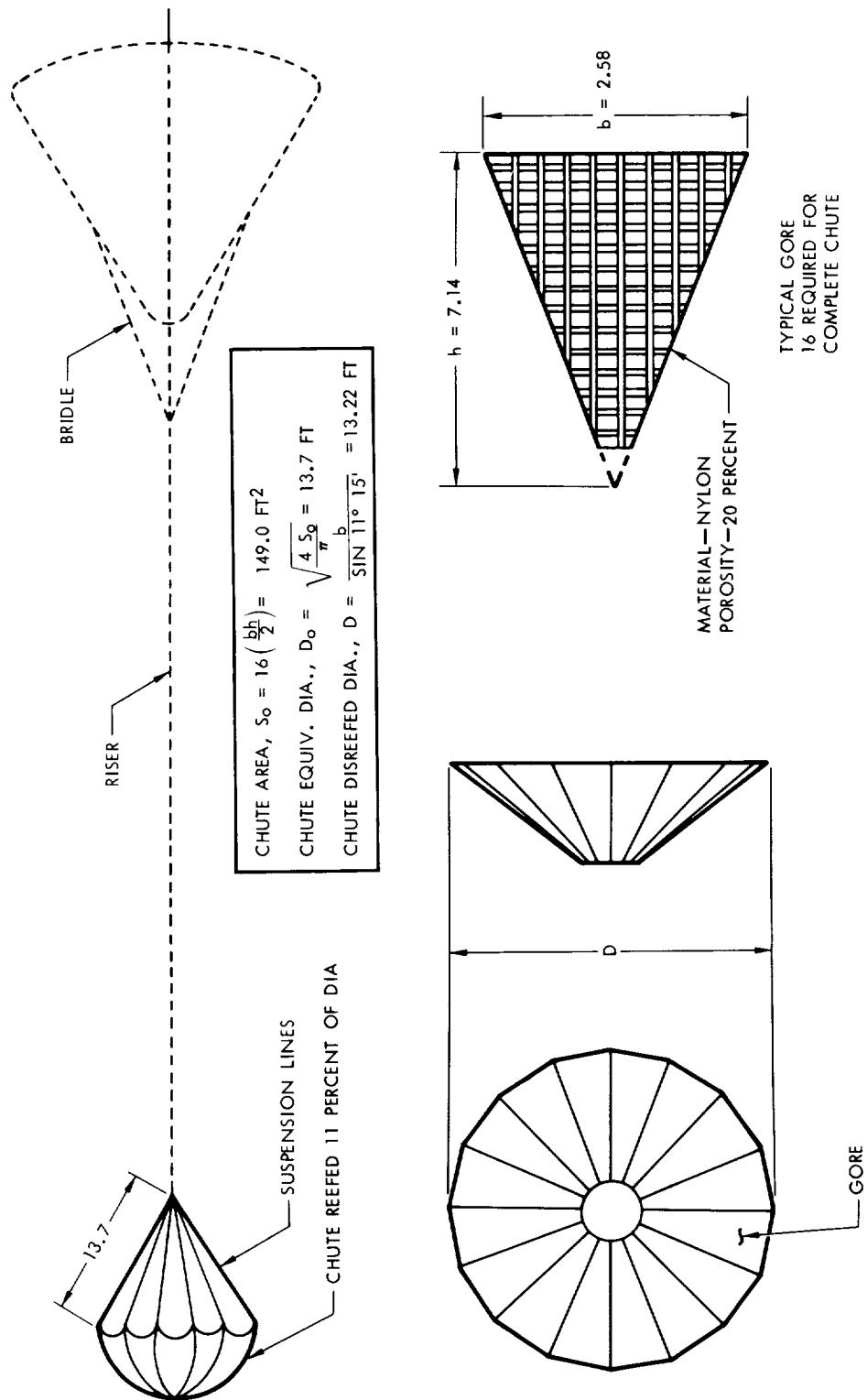
CHUTE AREA,  $S_0 = 16 \left( \frac{bh}{2} \right) = 142.0 \text{ FT}^2$   
 CHUTE EQUIV. DIA.,  $D_0 = \sqrt{\frac{4 S_0}{\pi}} = 13.4 \text{ FT}$   
 CHUTE DISREEFED DIA.,  $D = \frac{b}{\sin 11^\circ 15'} = 13.48 \text{ FT}$



FULL-SCALE DIMENSIONS IN FEET

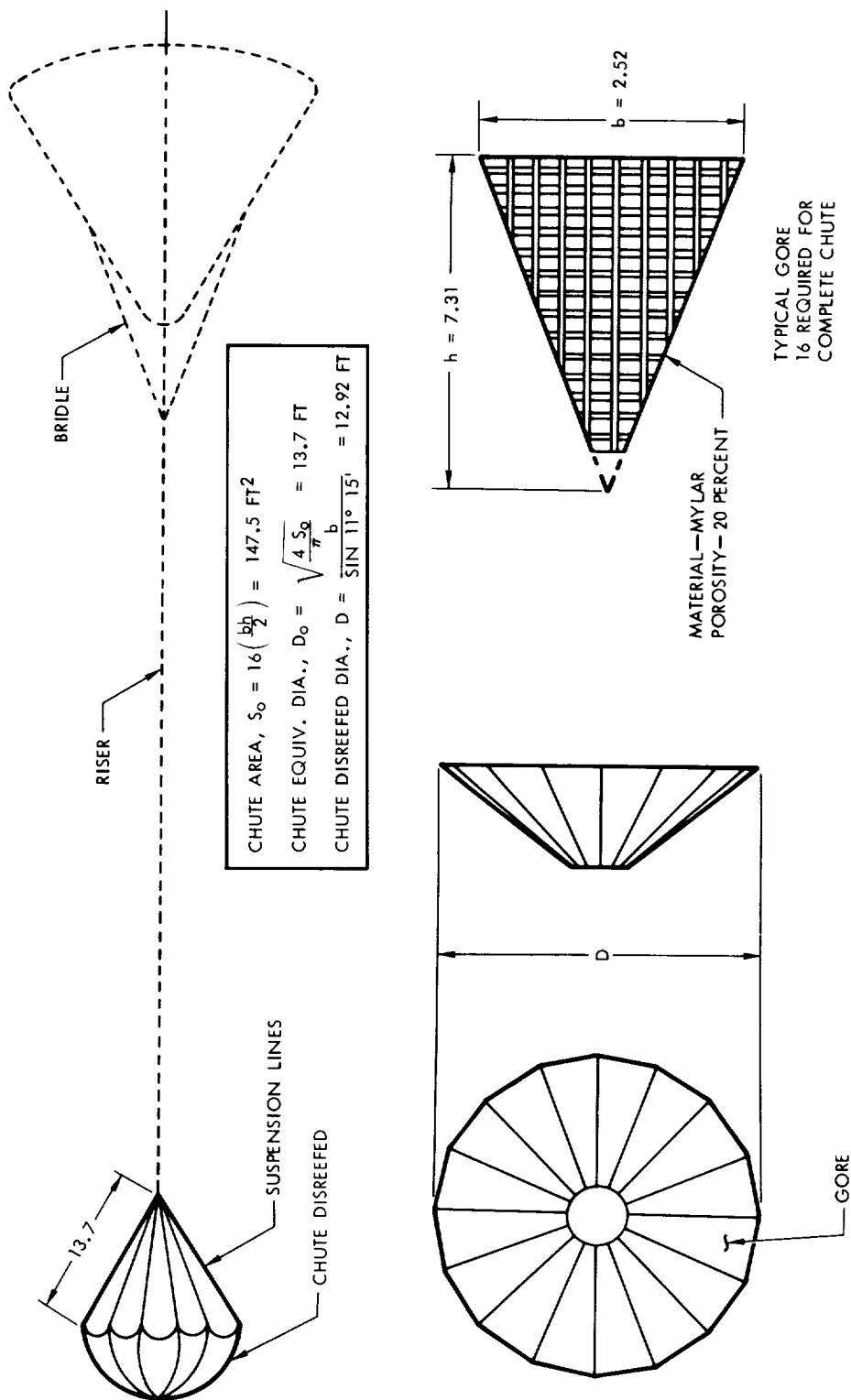
DROGUE CHUTE Q<sub>2</sub>

DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

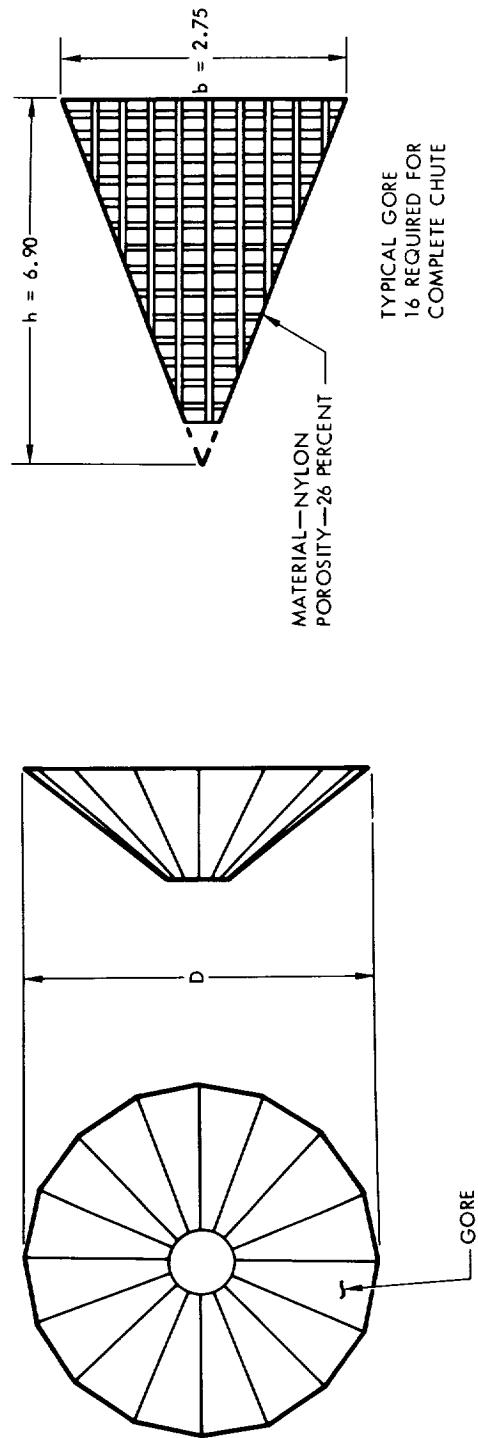
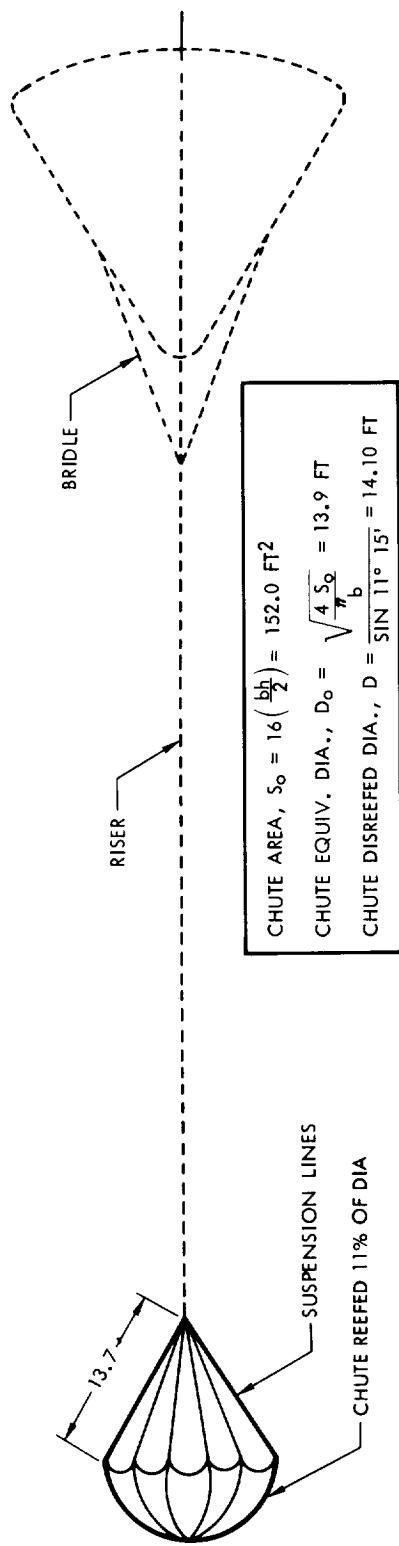
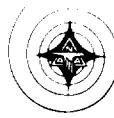
DROGUE CHUTE Q3



FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q4

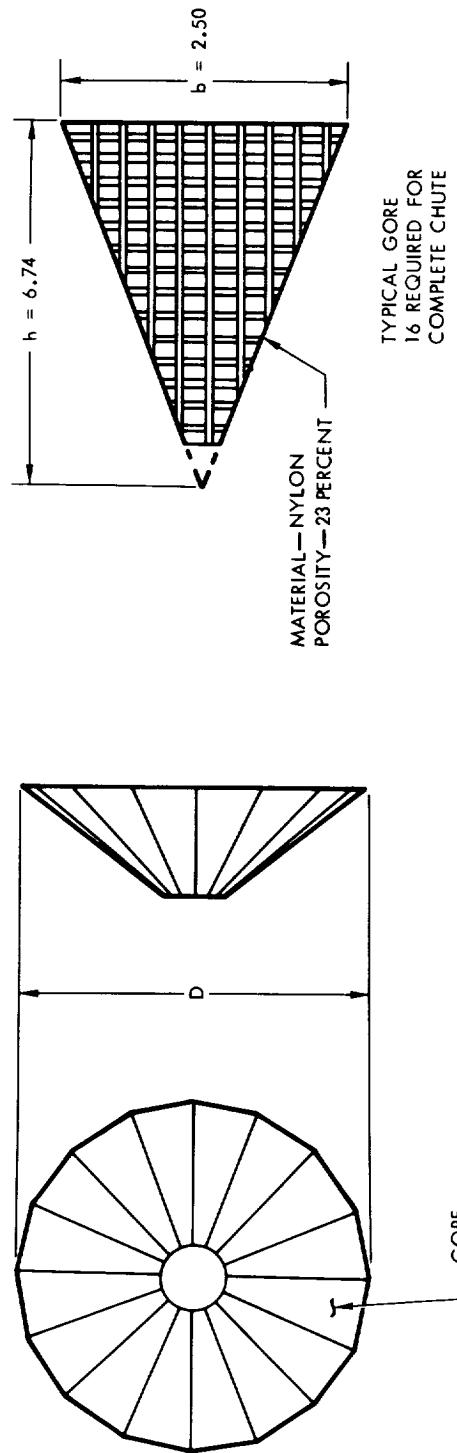
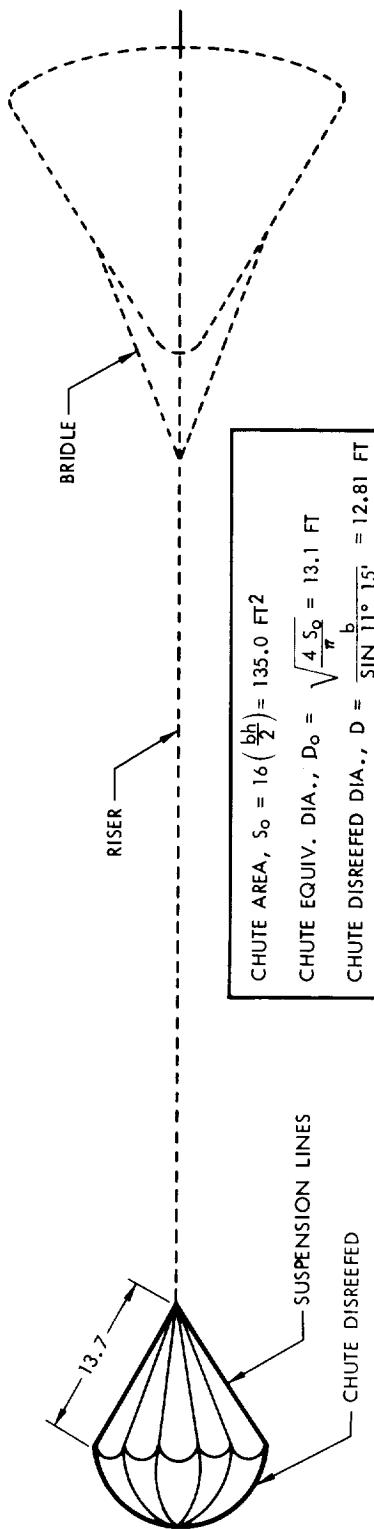
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FULL-SCALE DIMENSIONS IN FEET

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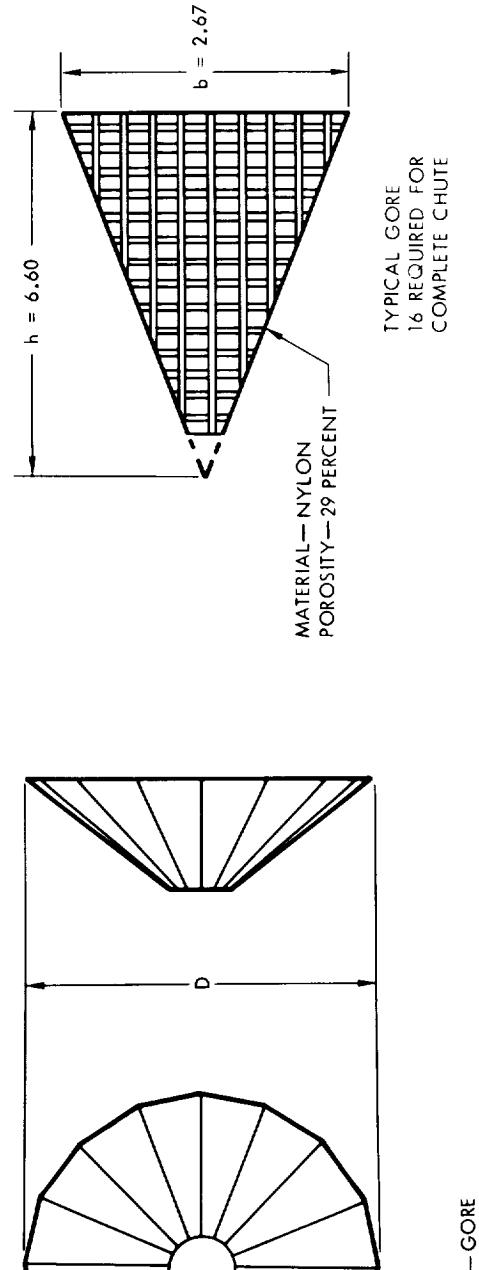
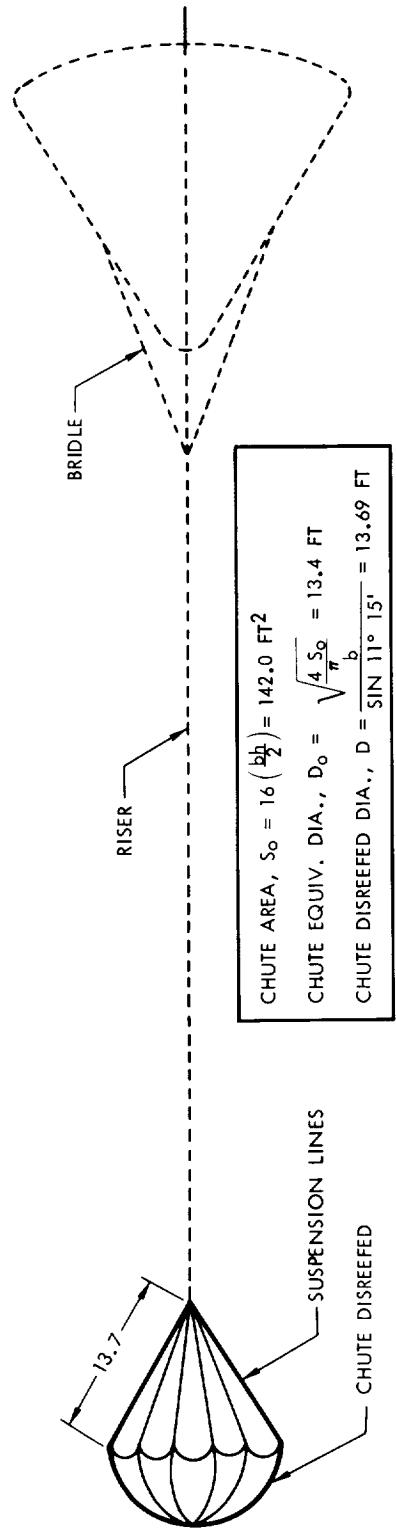
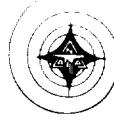
DROGUE CHUTE Q5



FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q6

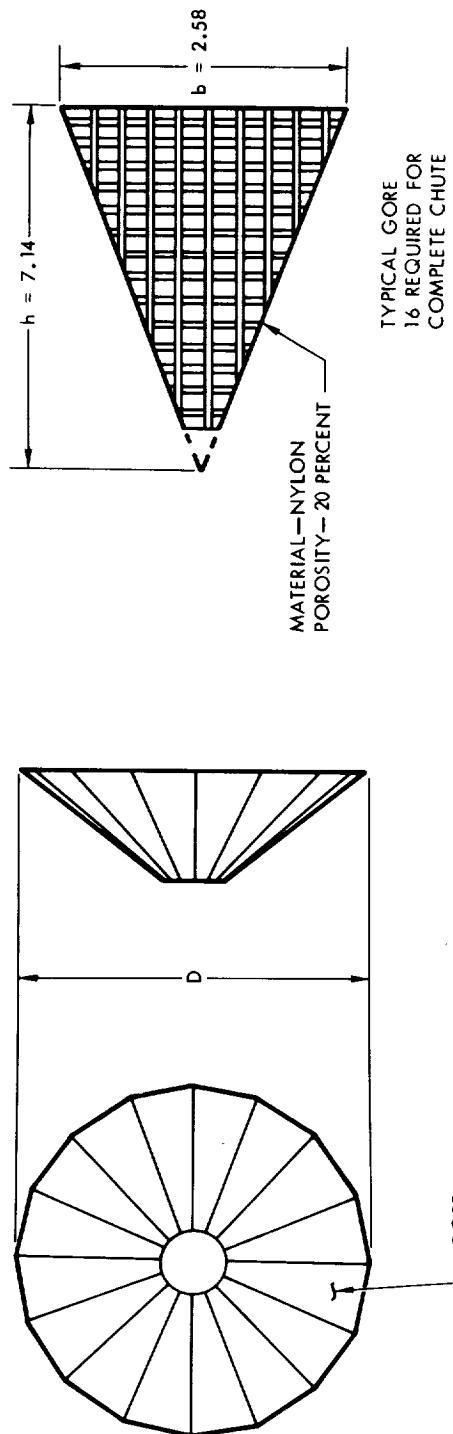
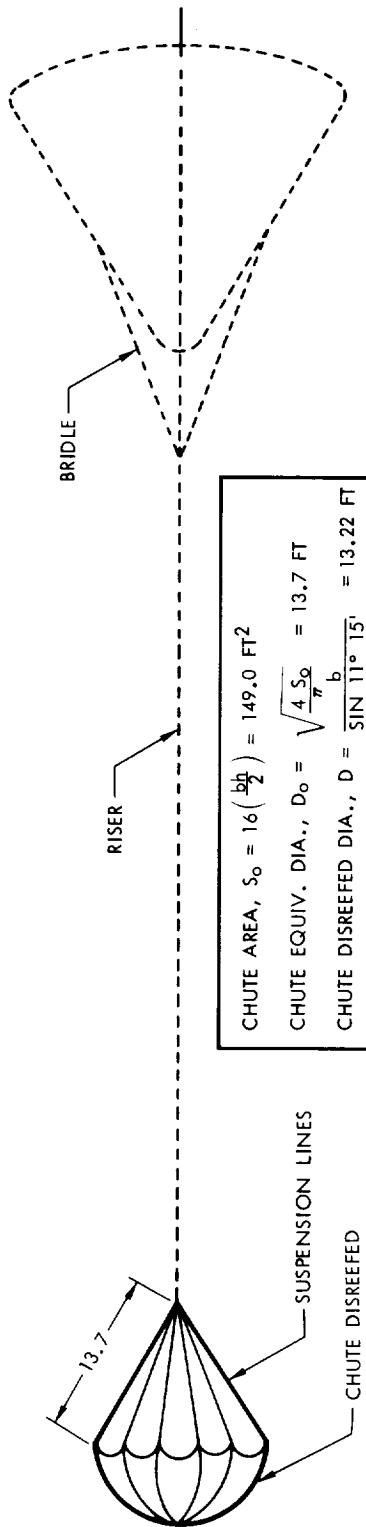
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q 7

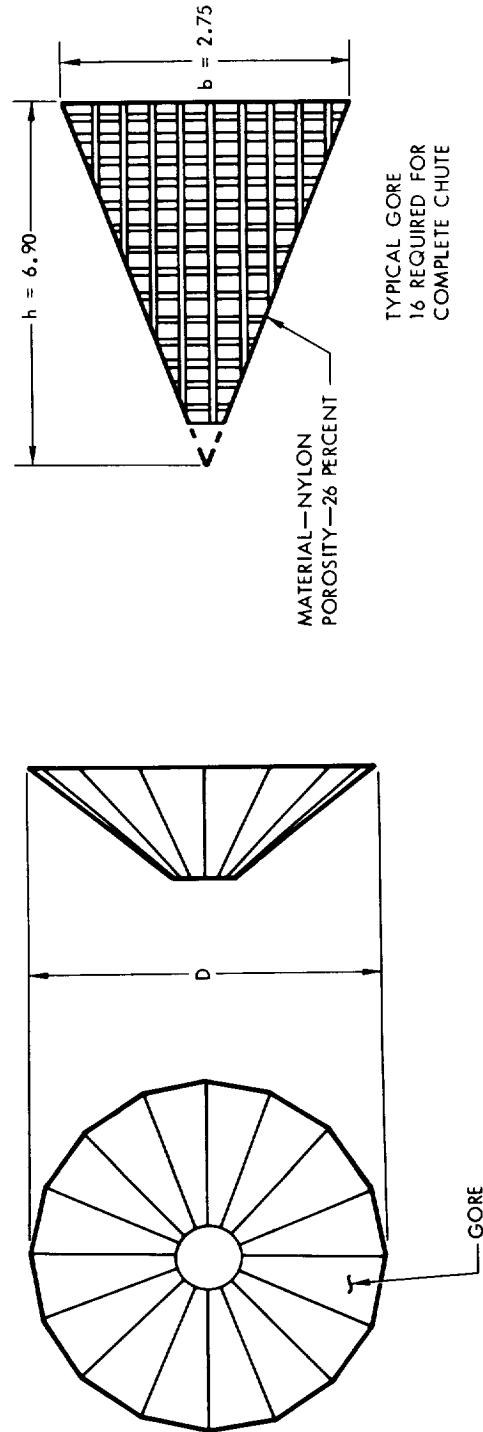
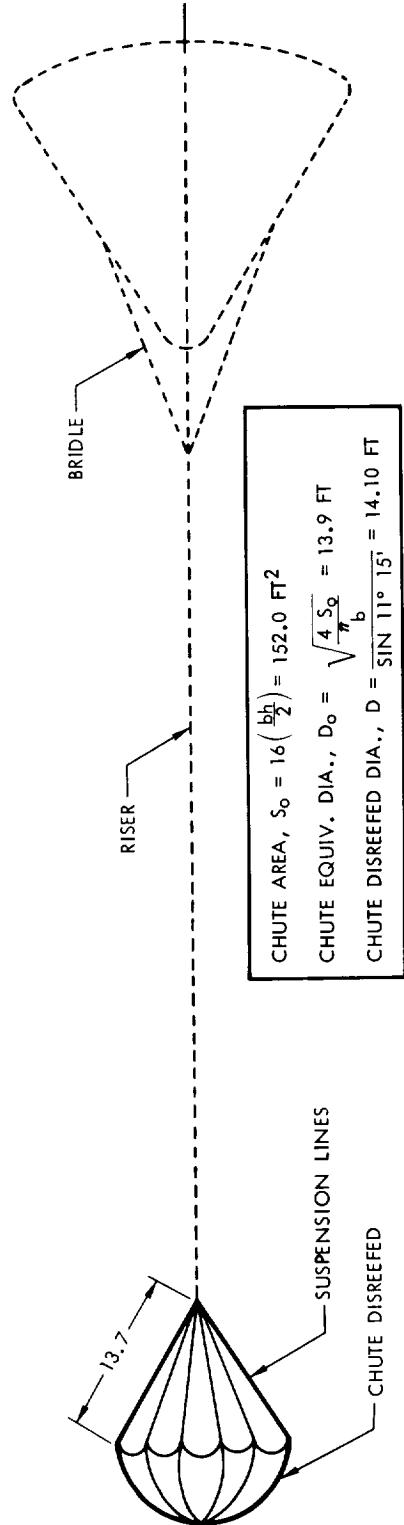
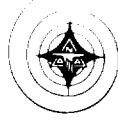
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q<sub>8</sub>

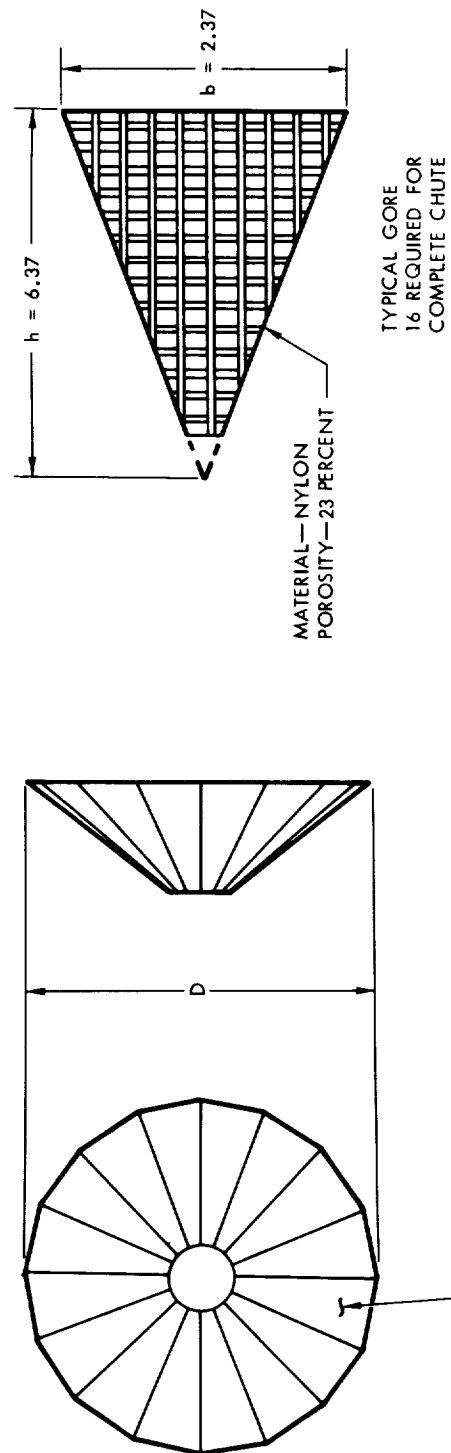
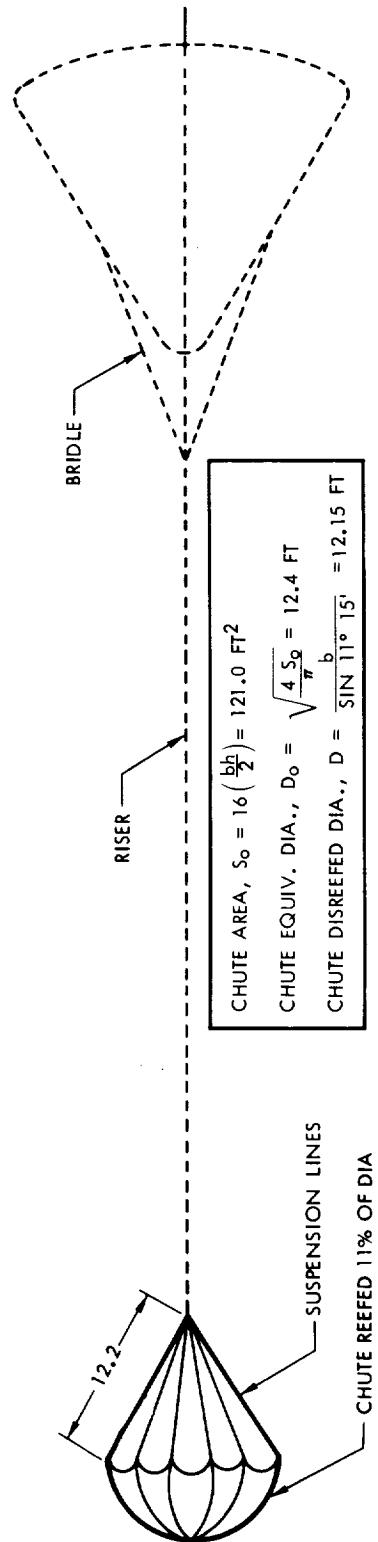
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FULL-SCALE DIMENSIONS IN FEET

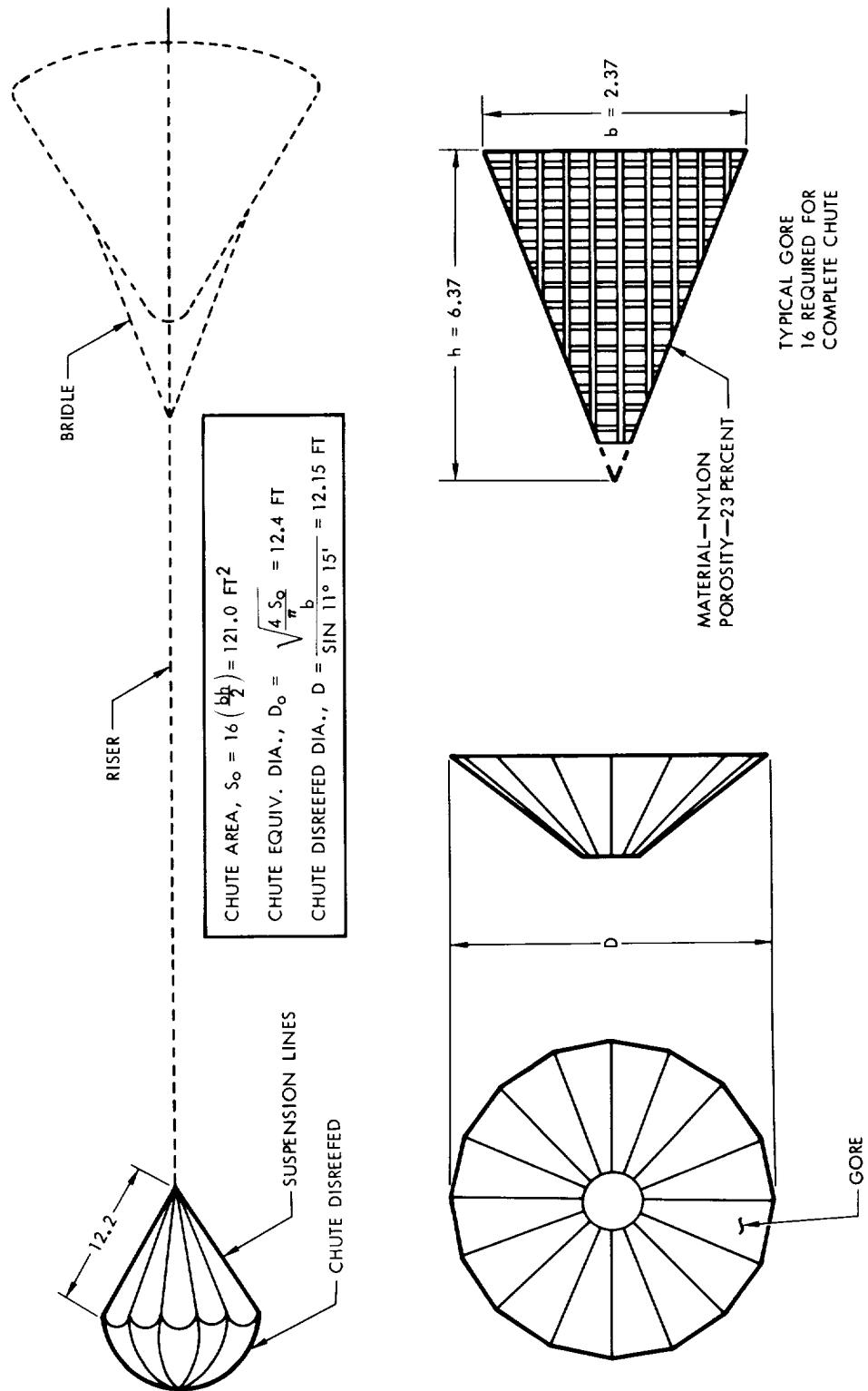
DROGUE CHUTE Q 9

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DRAWING NOT TO SCALE

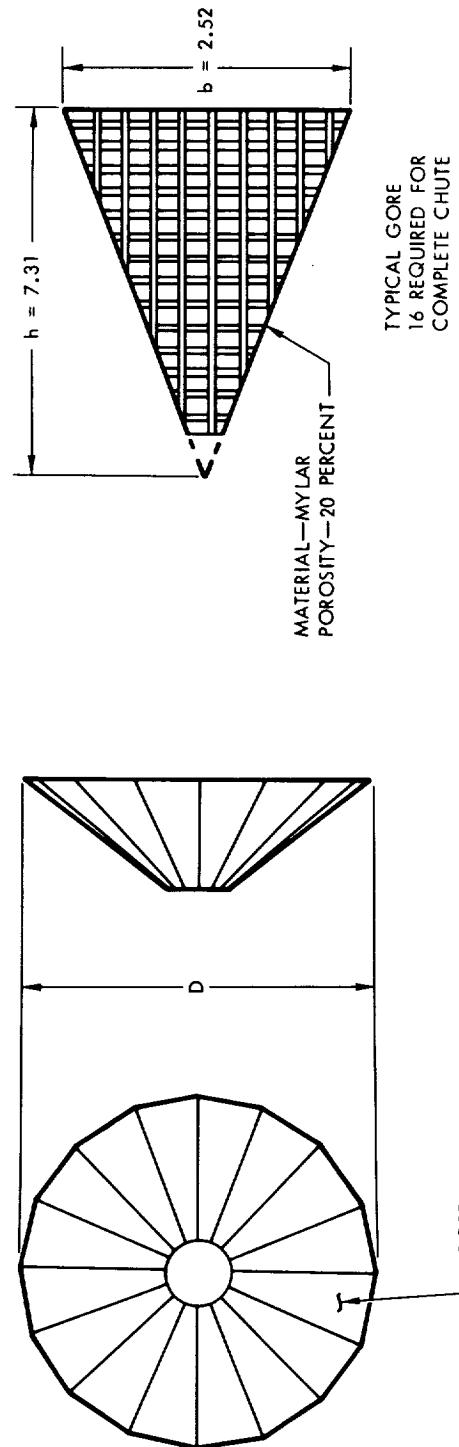
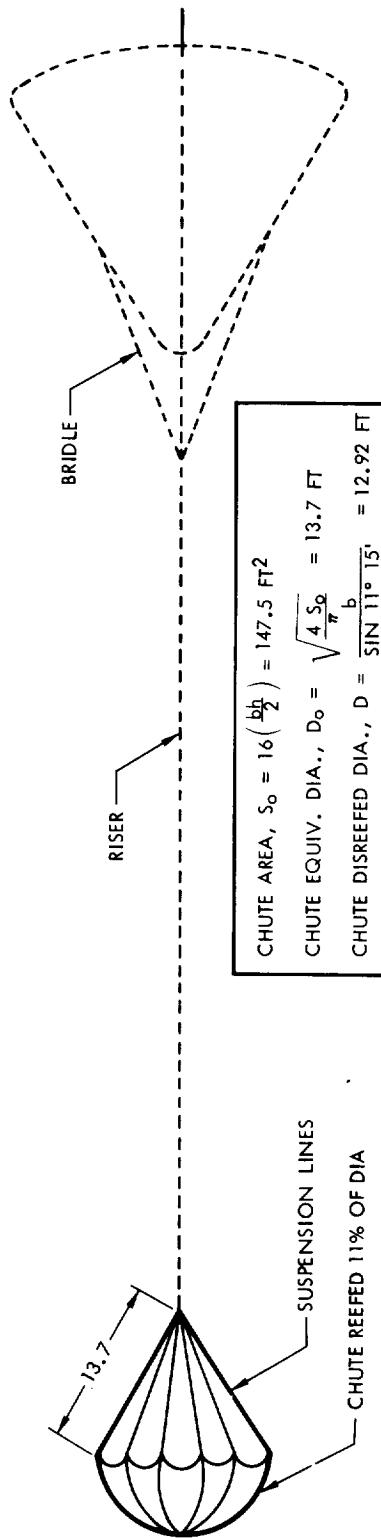
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FULL-SCALE DIMENSIONS IN FEET

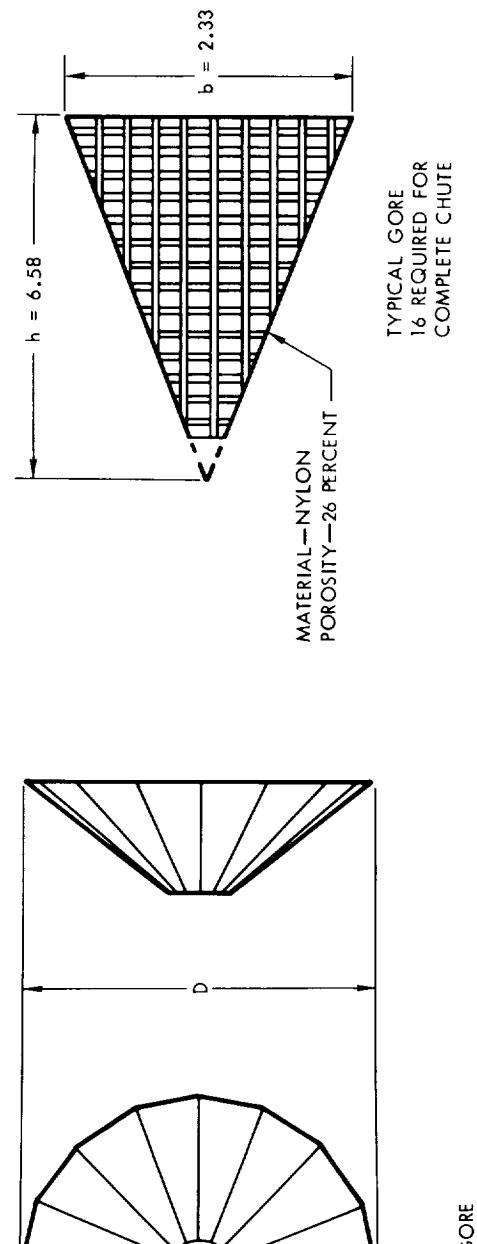
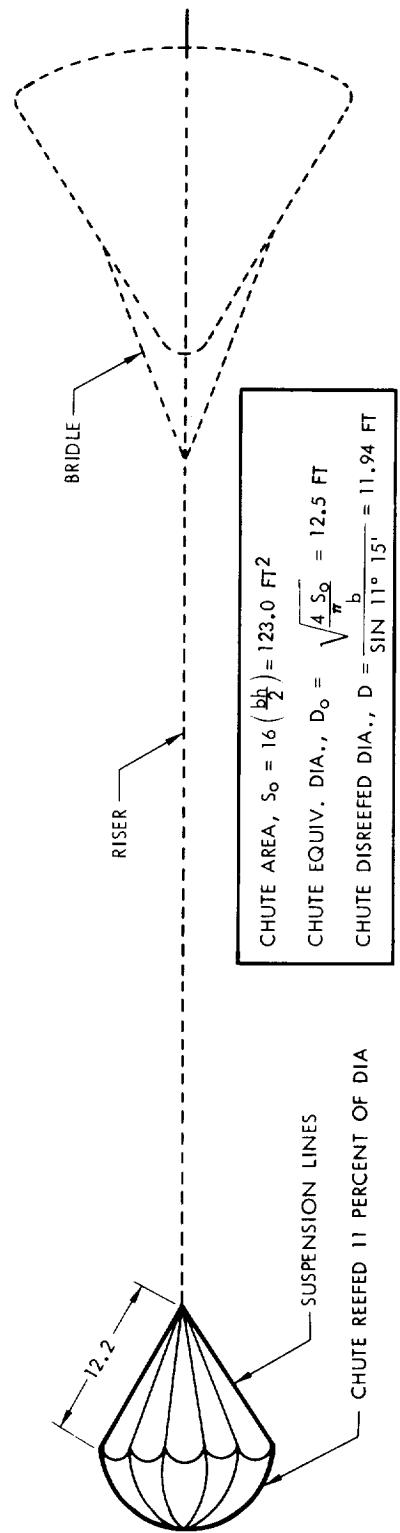
DROGUE CHUTE Q11

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DRAWING NOT TO SCALE

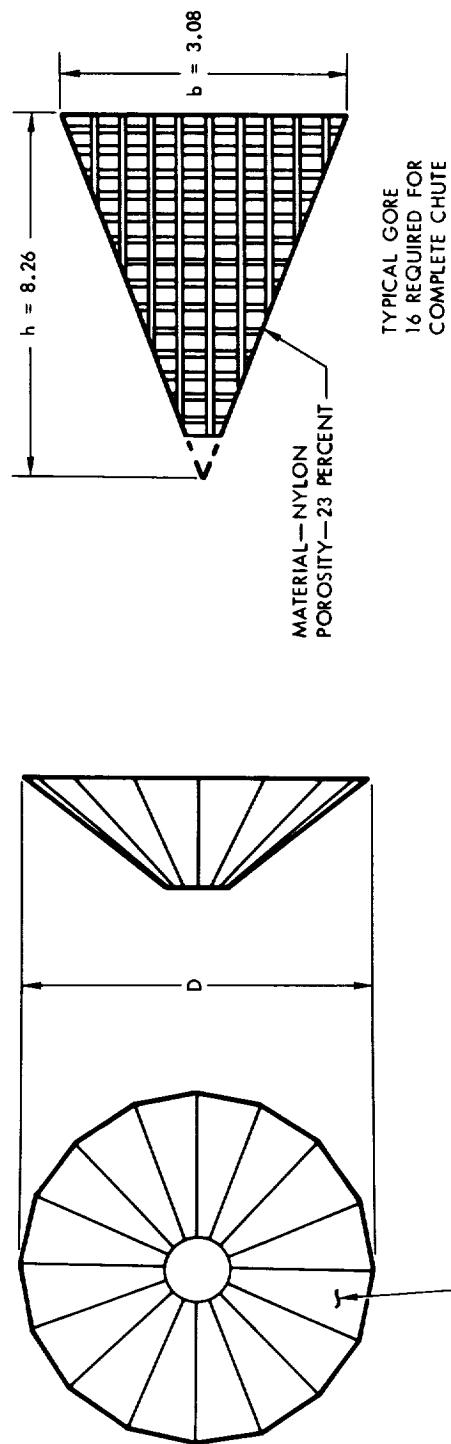
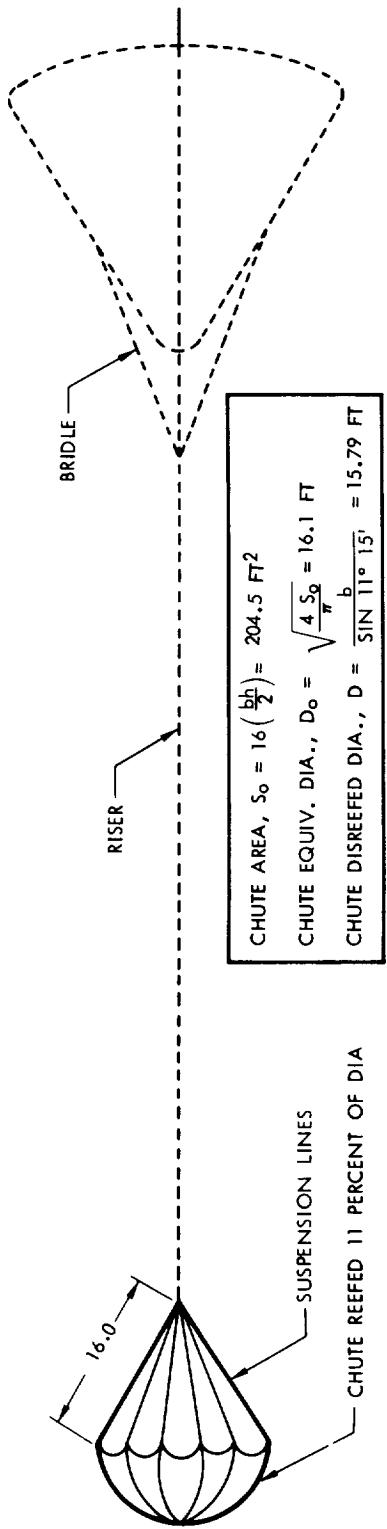
DROGUE CHUTE Q 12



FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q<sub>13</sub>

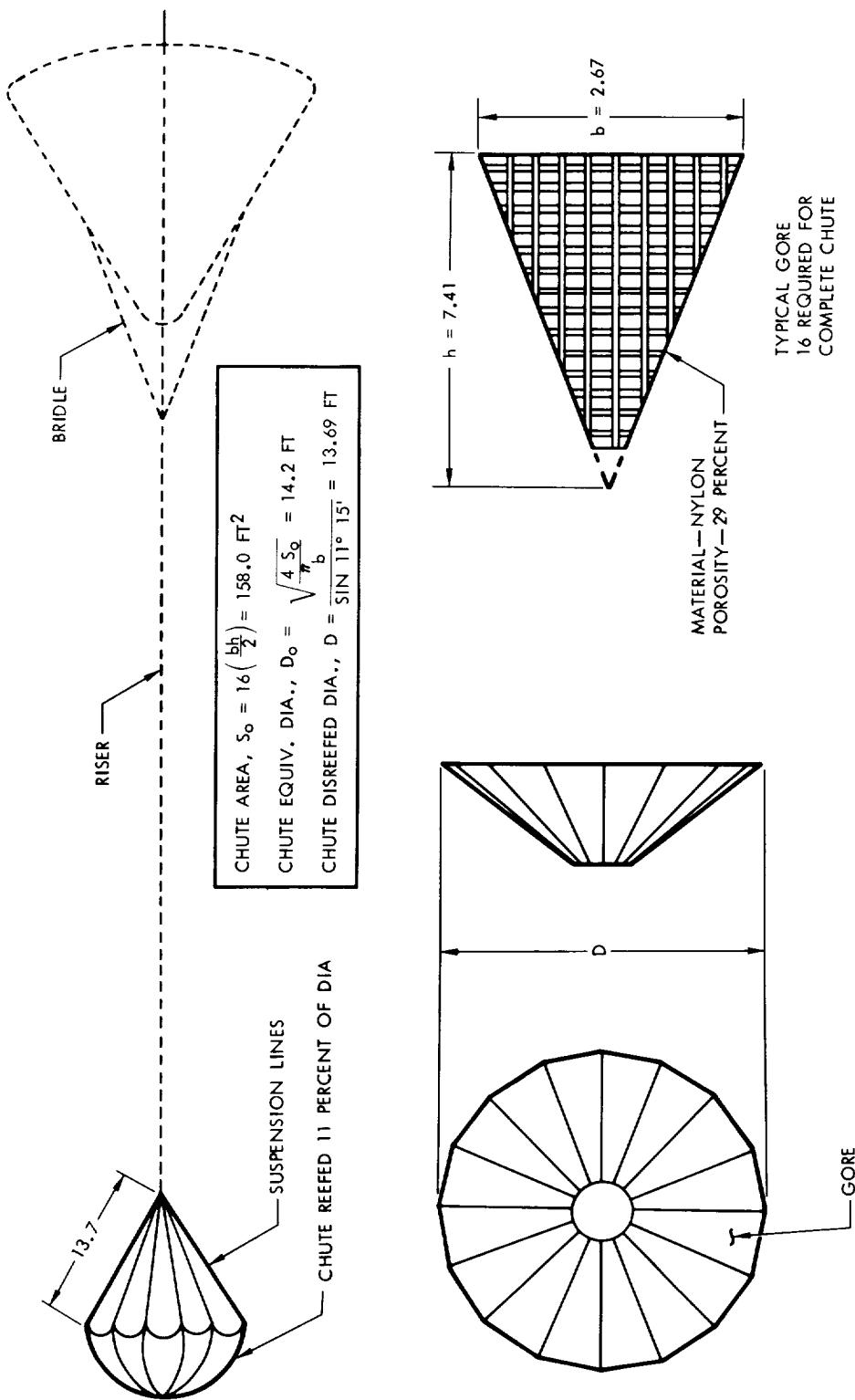
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q 14

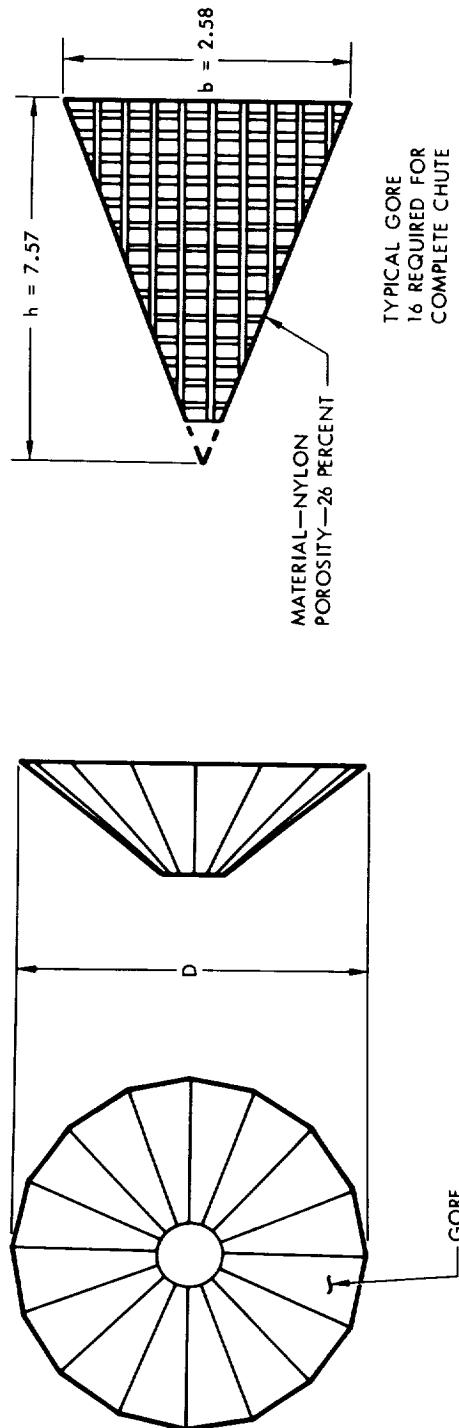
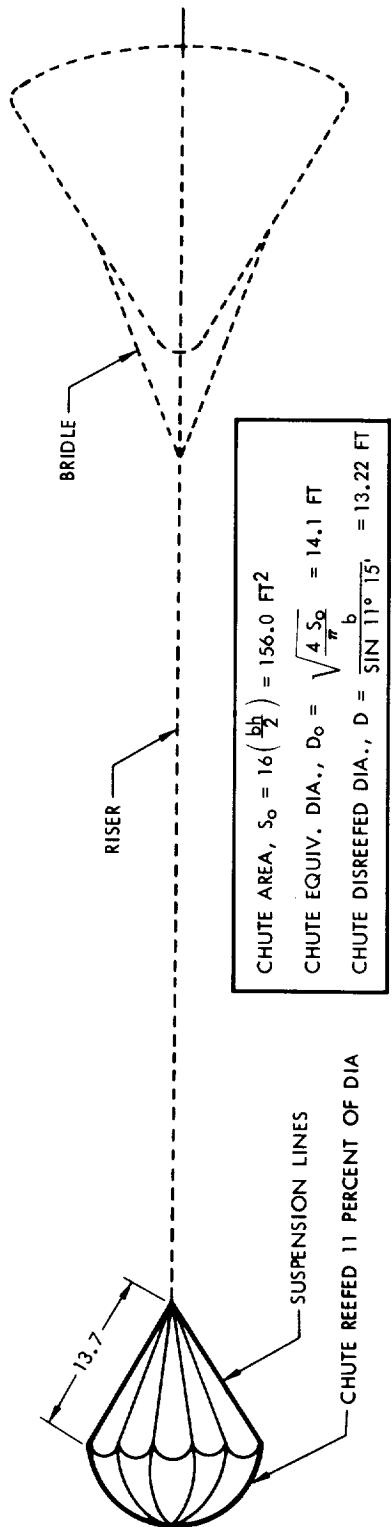
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q15

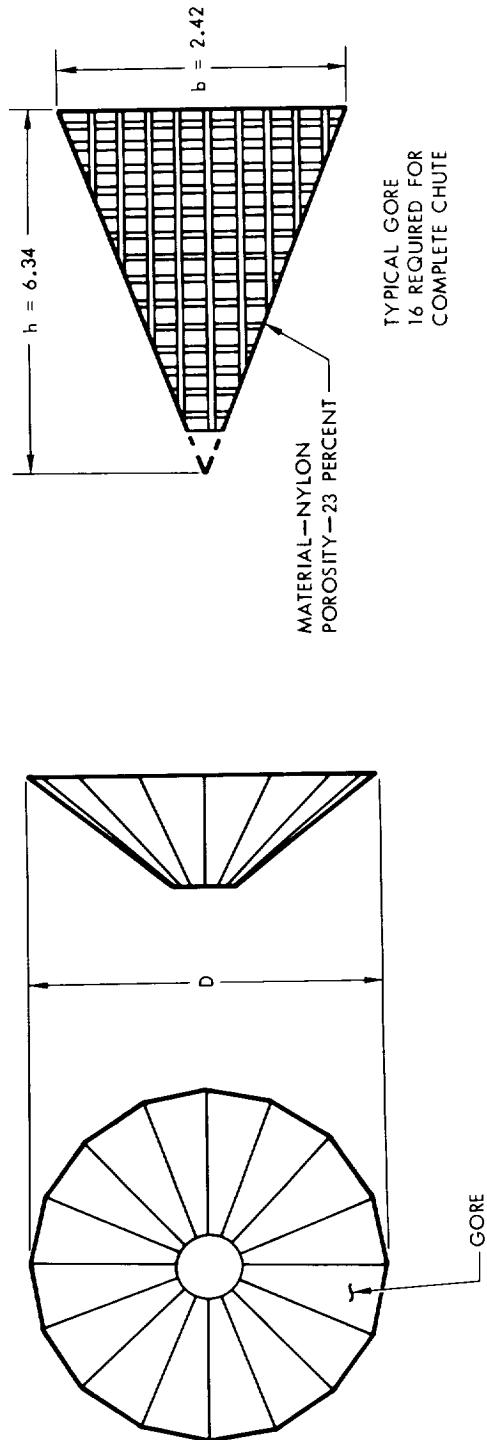
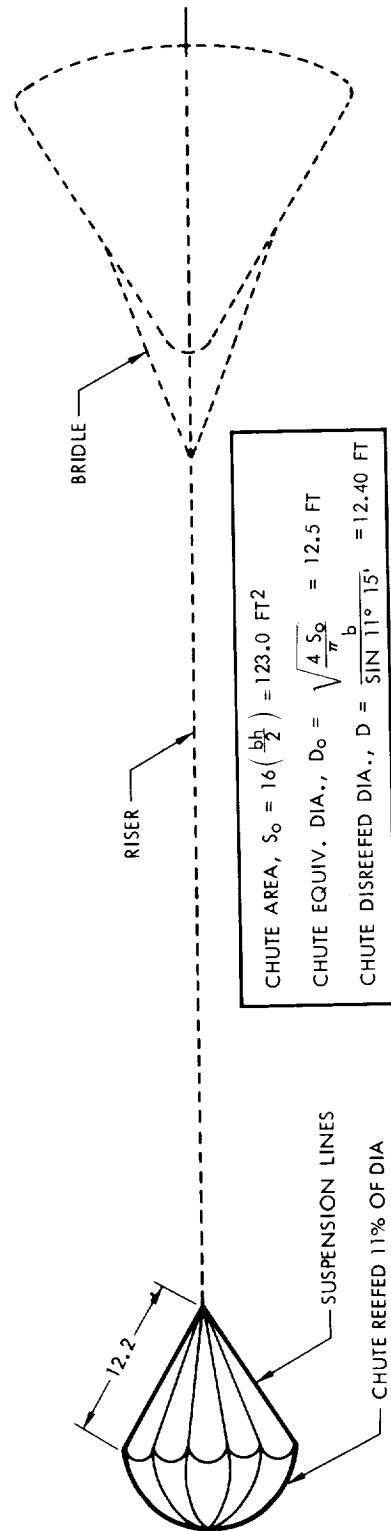
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q<sub>16</sub>

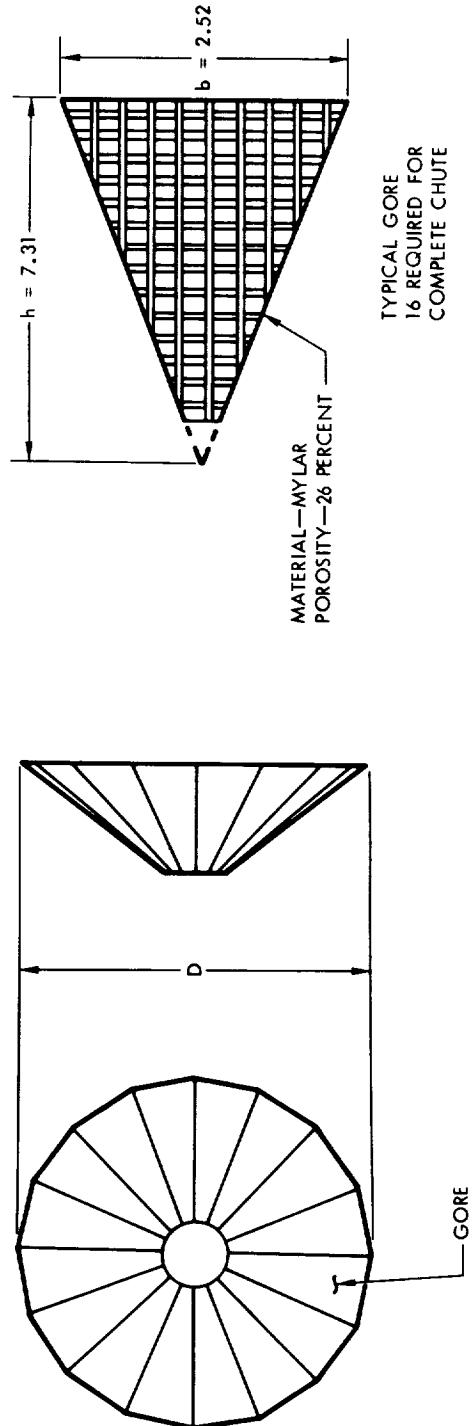
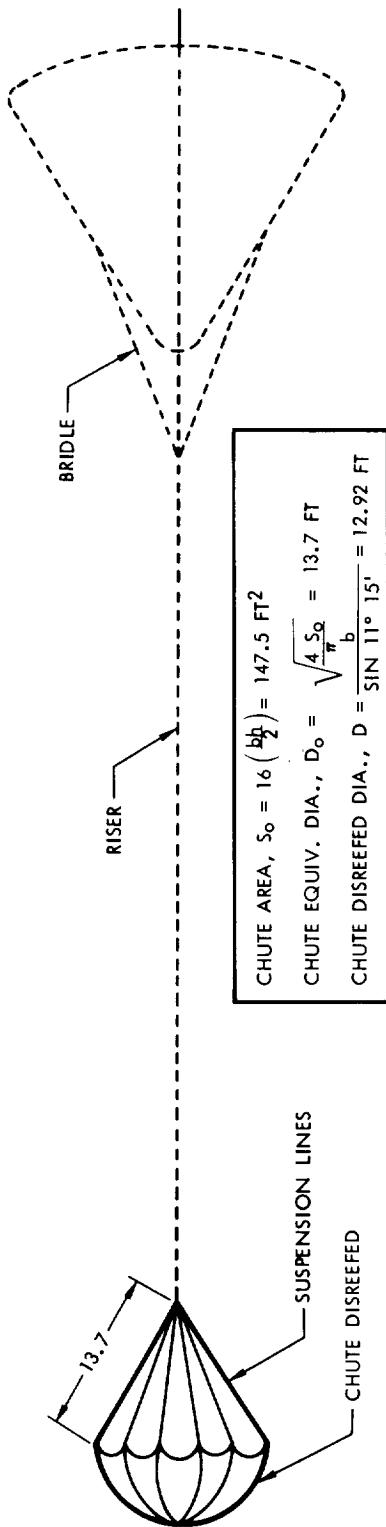
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q 17

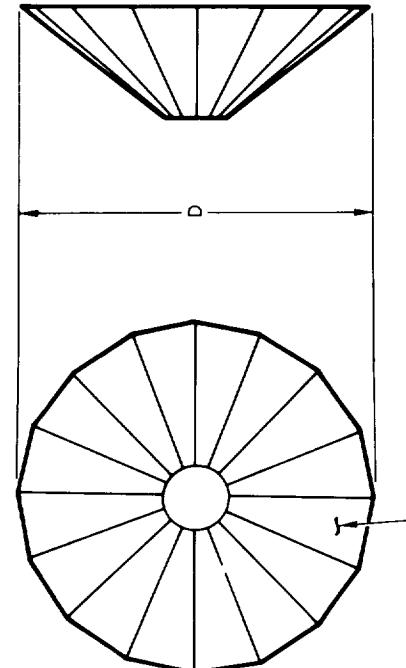
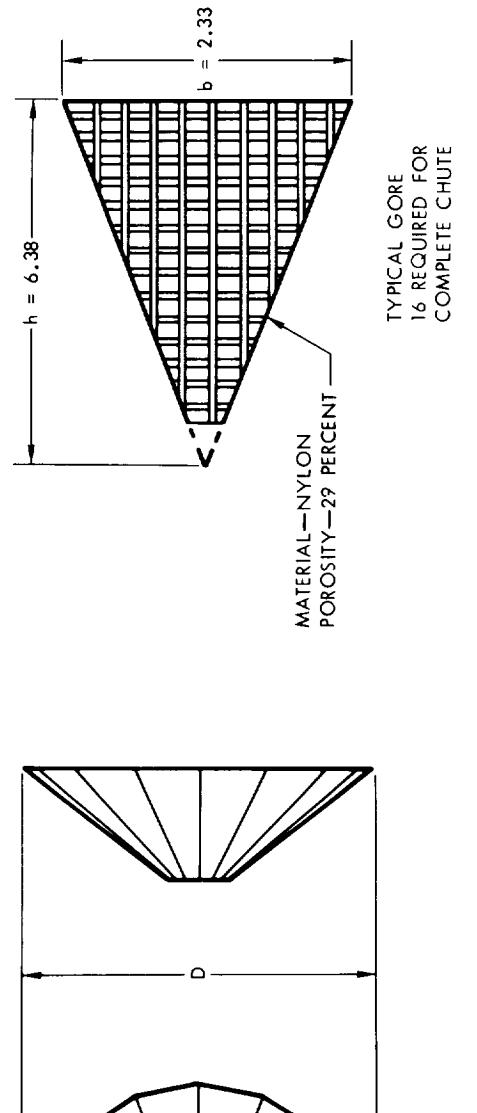
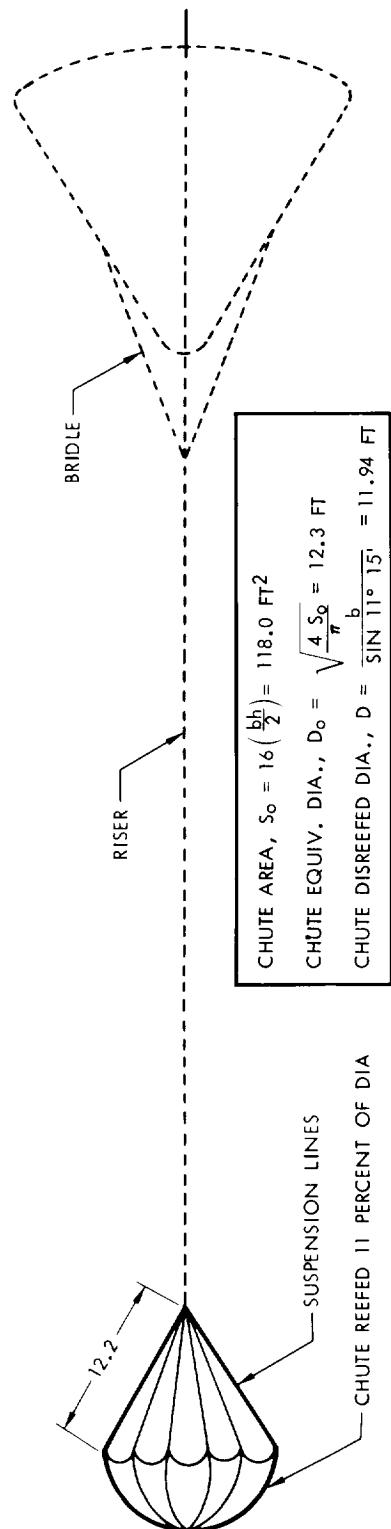
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE-Q18

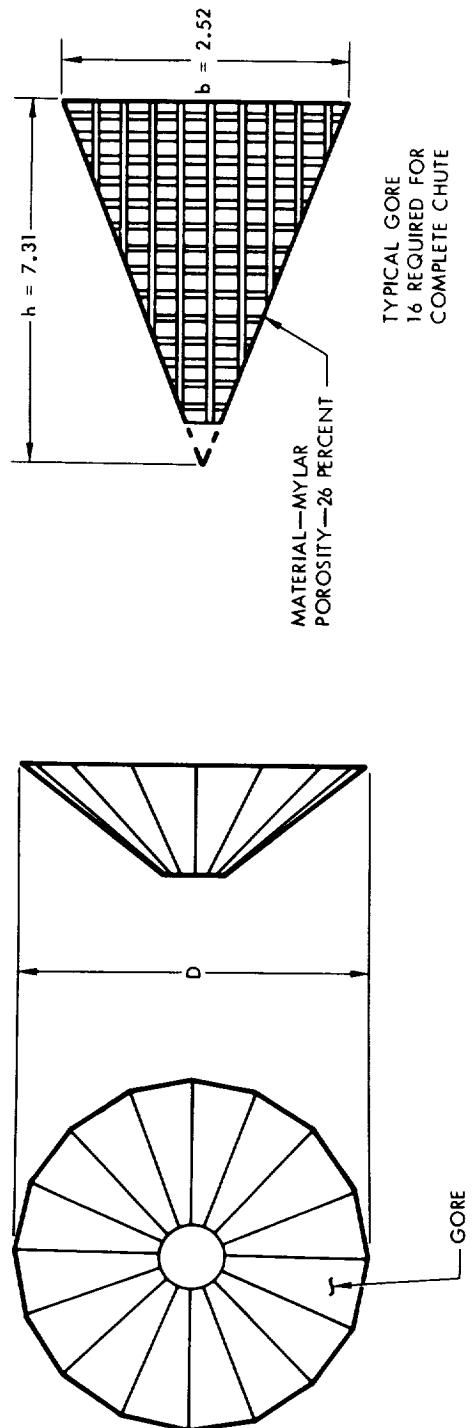
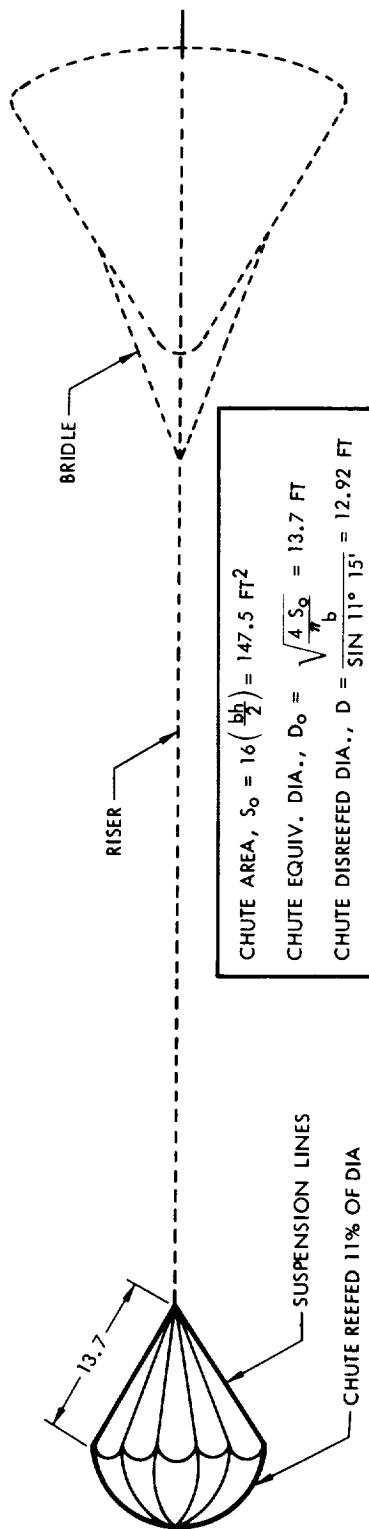
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q19

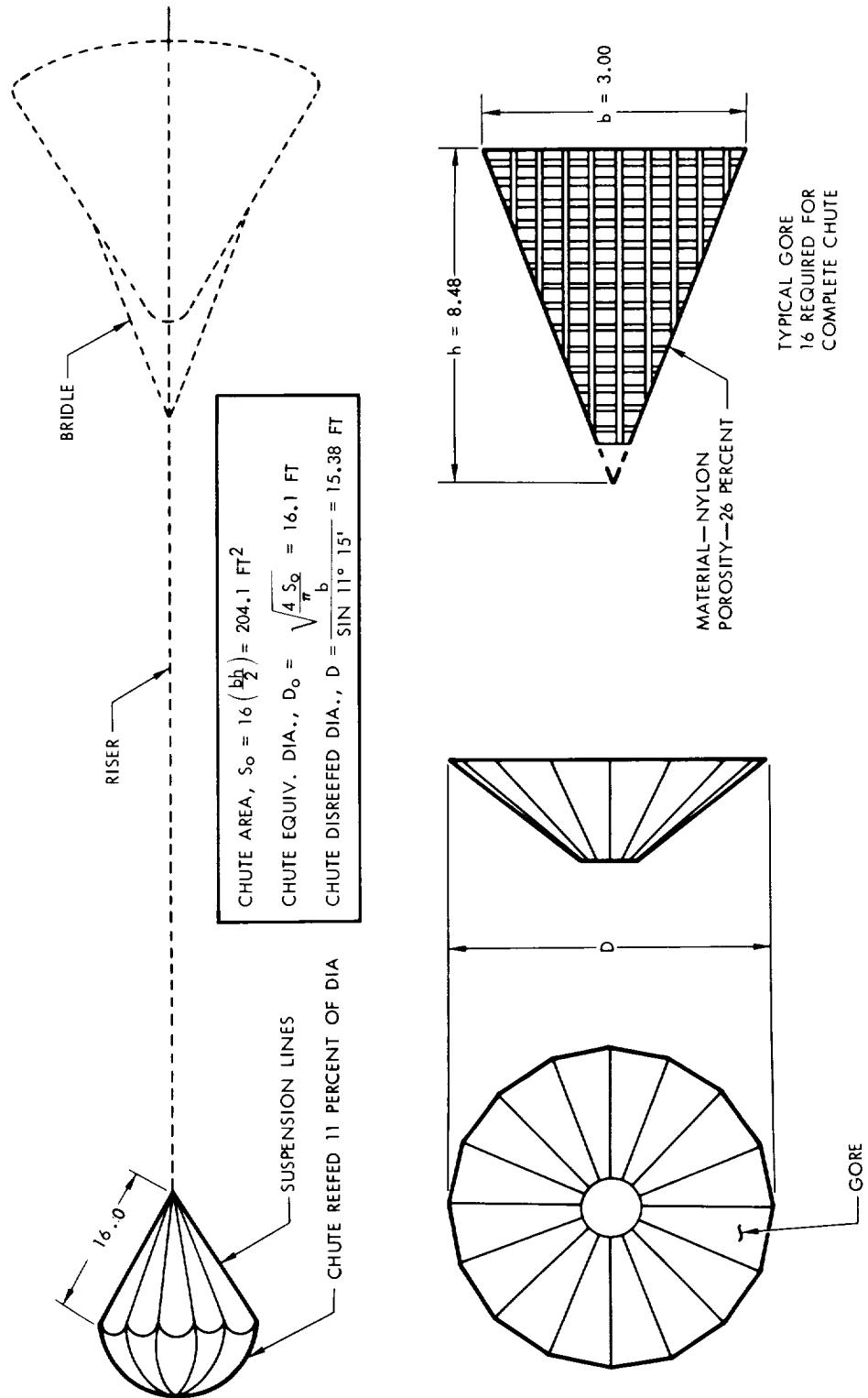
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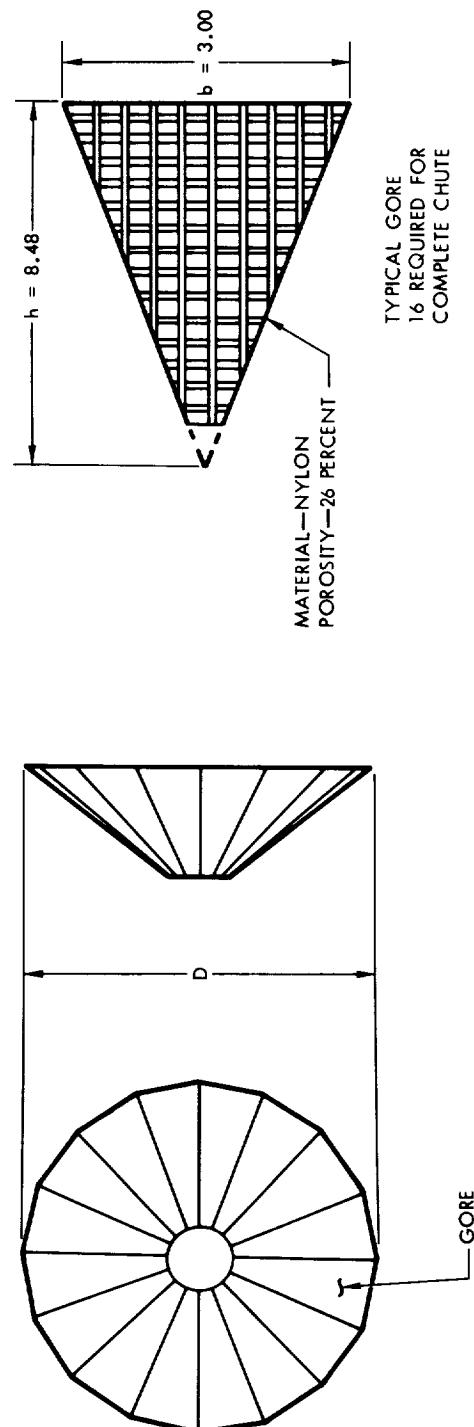
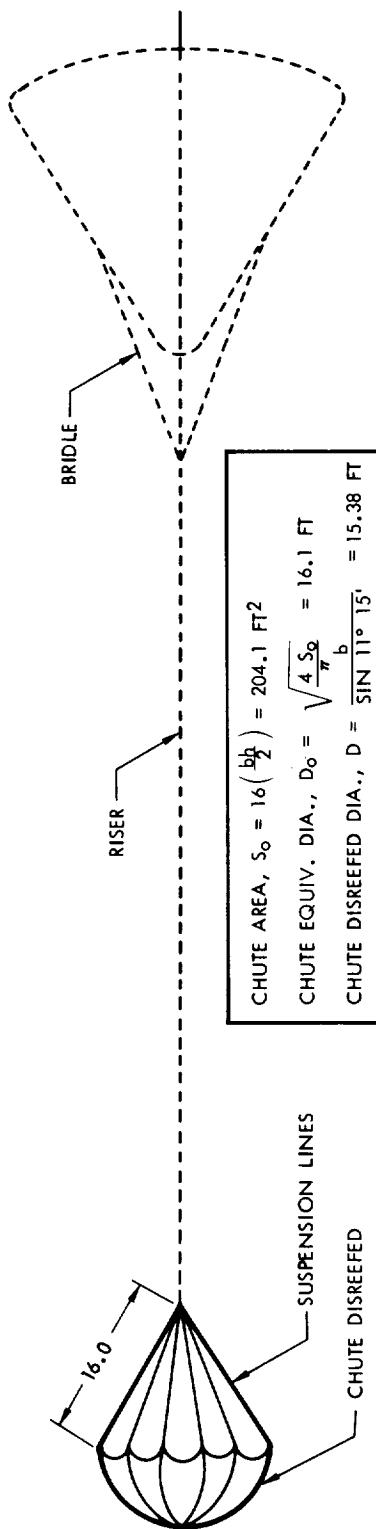


FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q20

DRAWING NOT TO SCALE

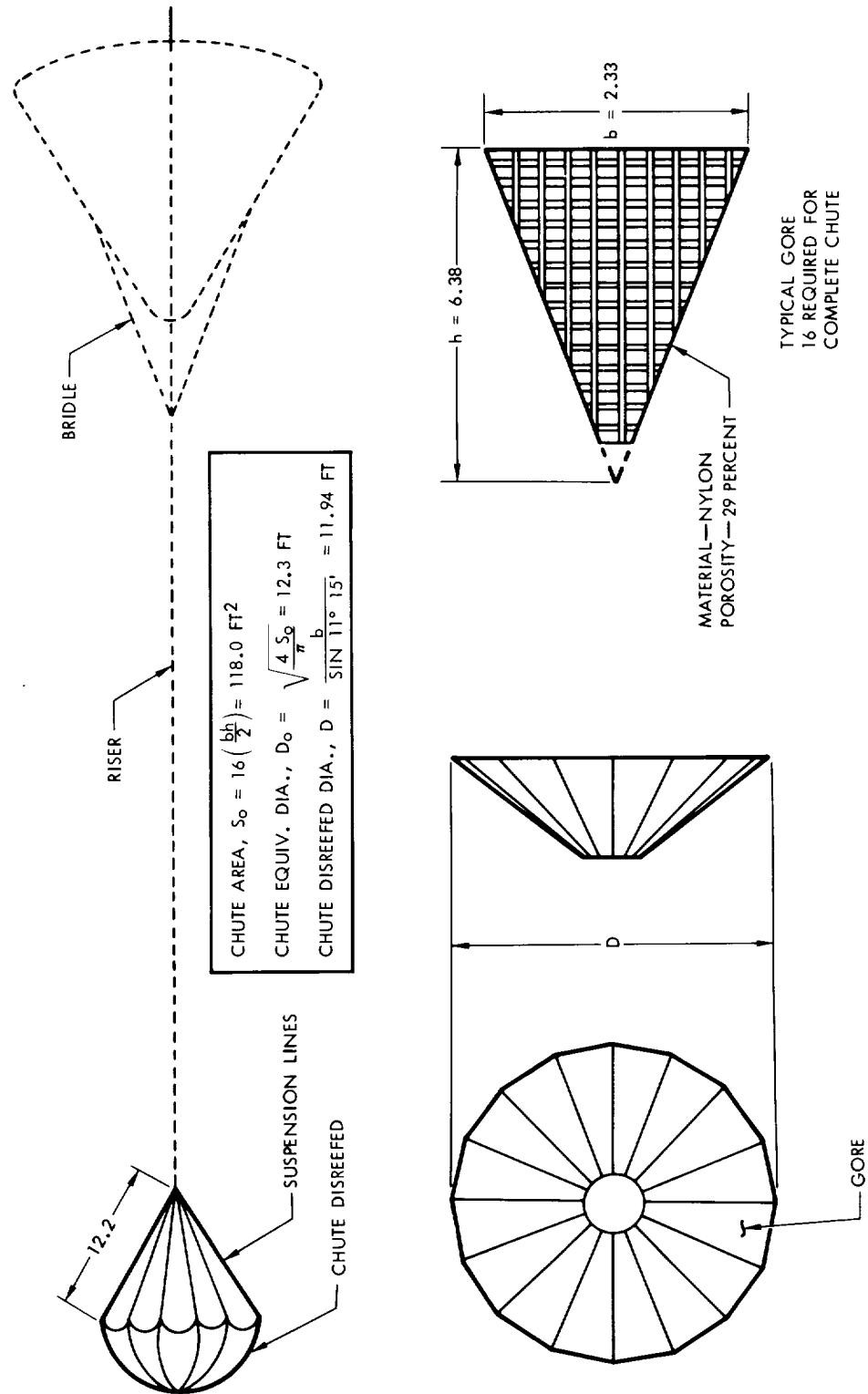




FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q22

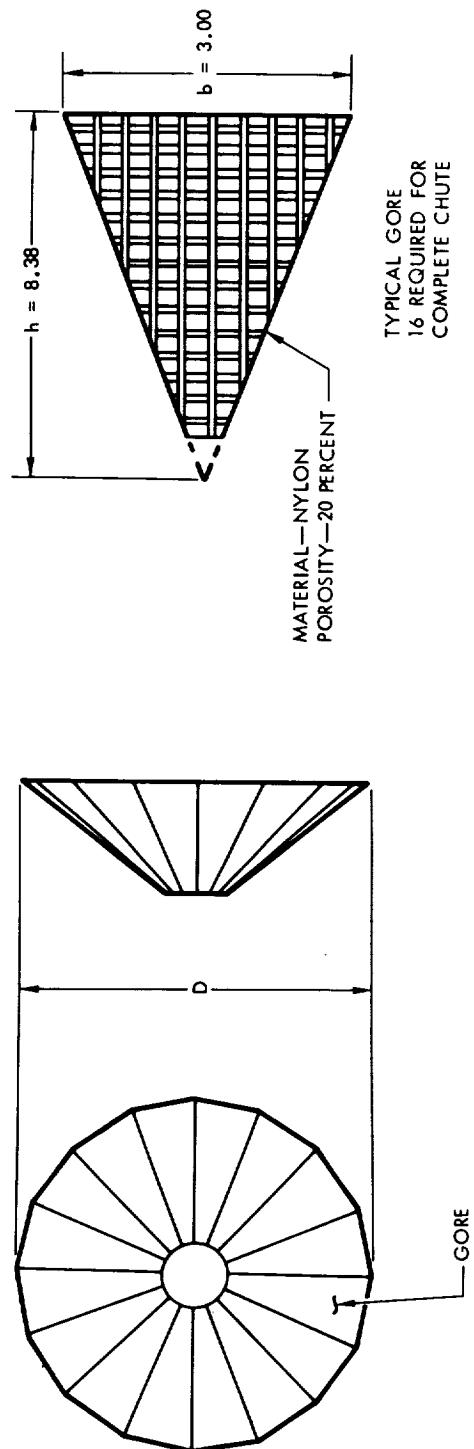
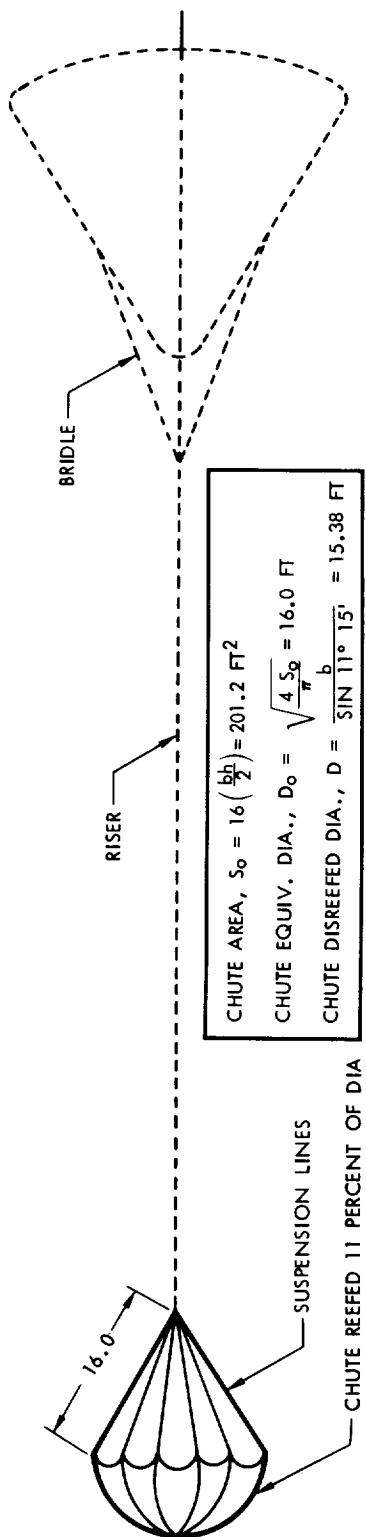
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q2

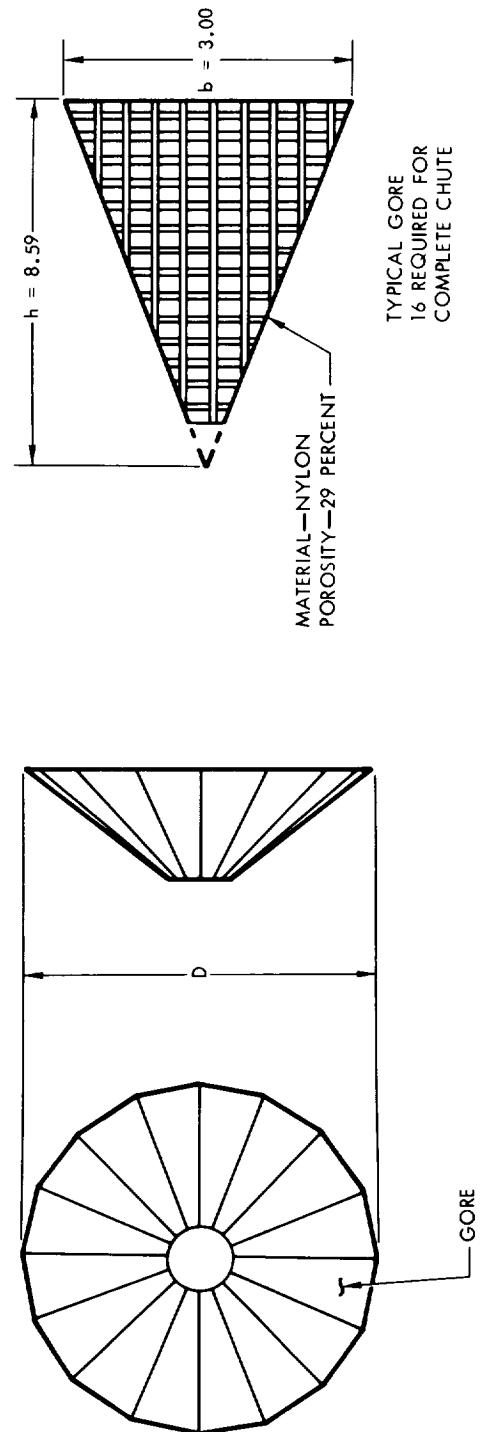
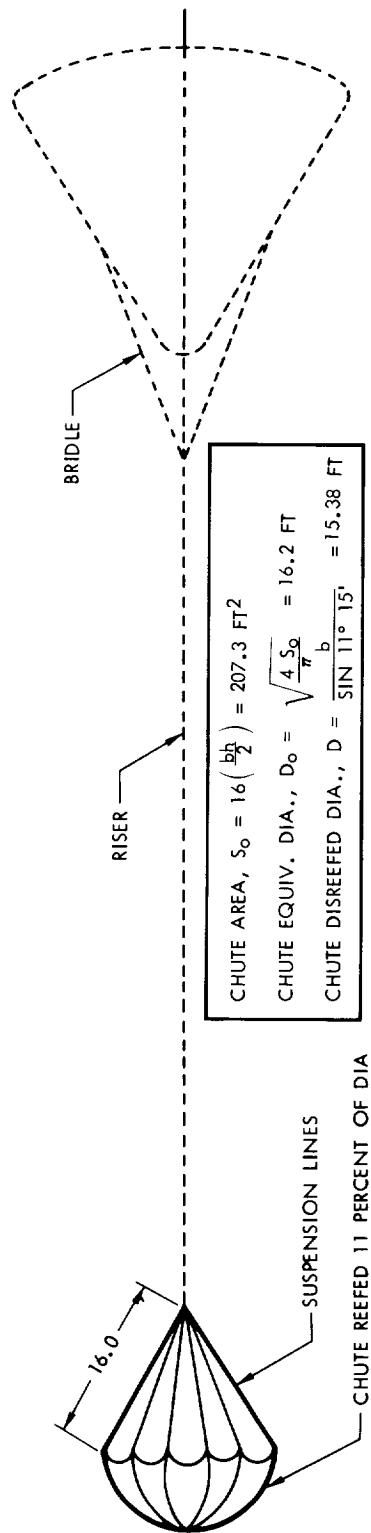
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q24

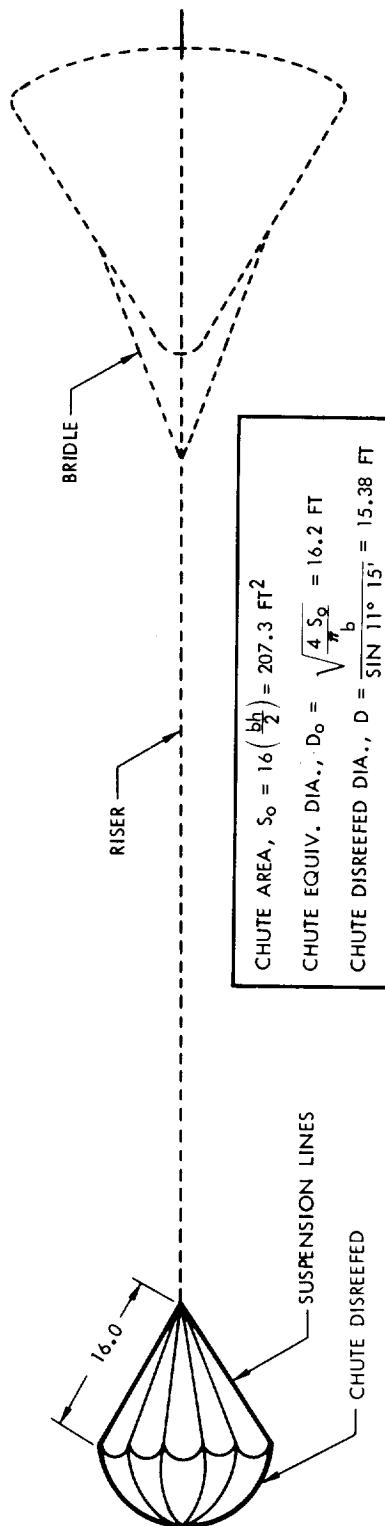
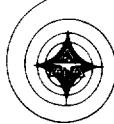
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FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q25

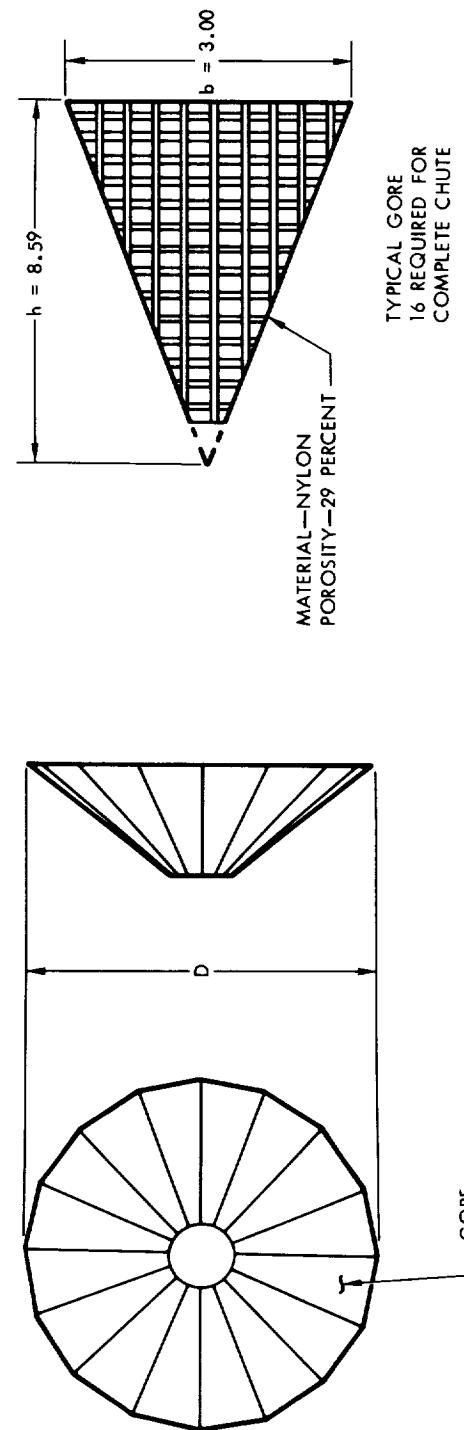
DRAWING NOT TO SCALE



$$\text{CHUTE AREA, } S_0 = 16 \left( \frac{bh}{2} \right) = 207.3 \text{ FT}^2$$

$$\text{CHUTE EQUIV. DIA., } D_0 = \sqrt{\frac{4 S_0}{\pi b}} = 16.2 \text{ FT}$$

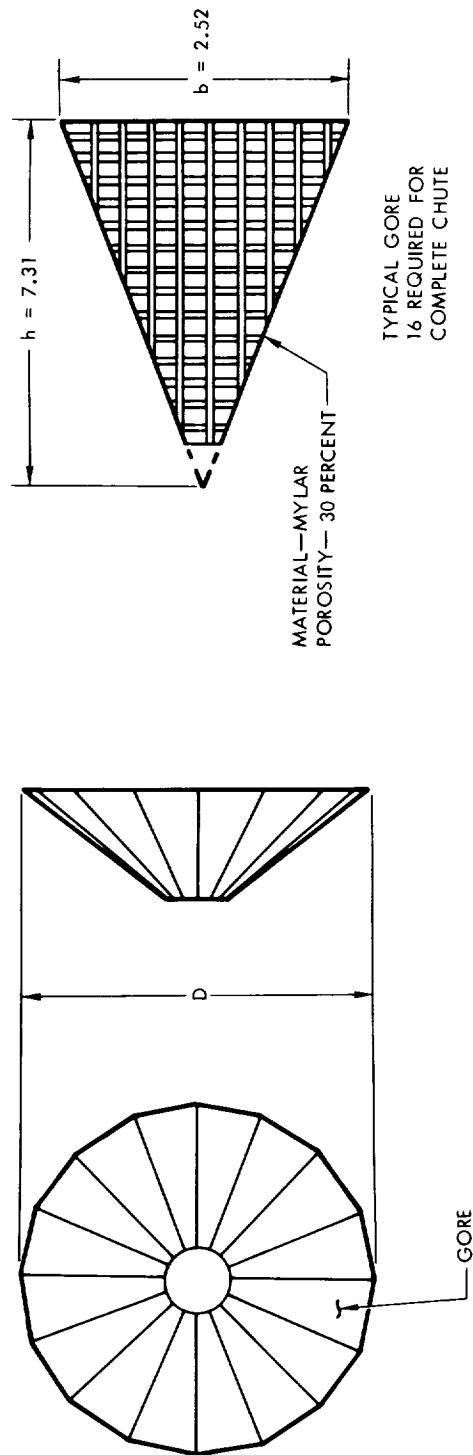
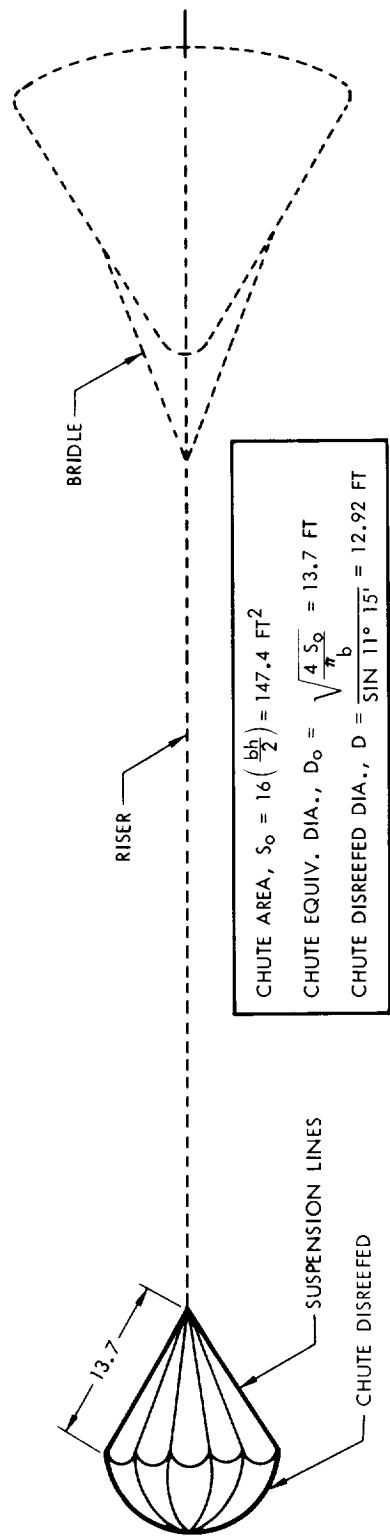
$$\text{CHUTE DISREEFED DIA., } D = \frac{b}{\sin 11^\circ 15'} = 15.38 \text{ FT}$$



FULL SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q26

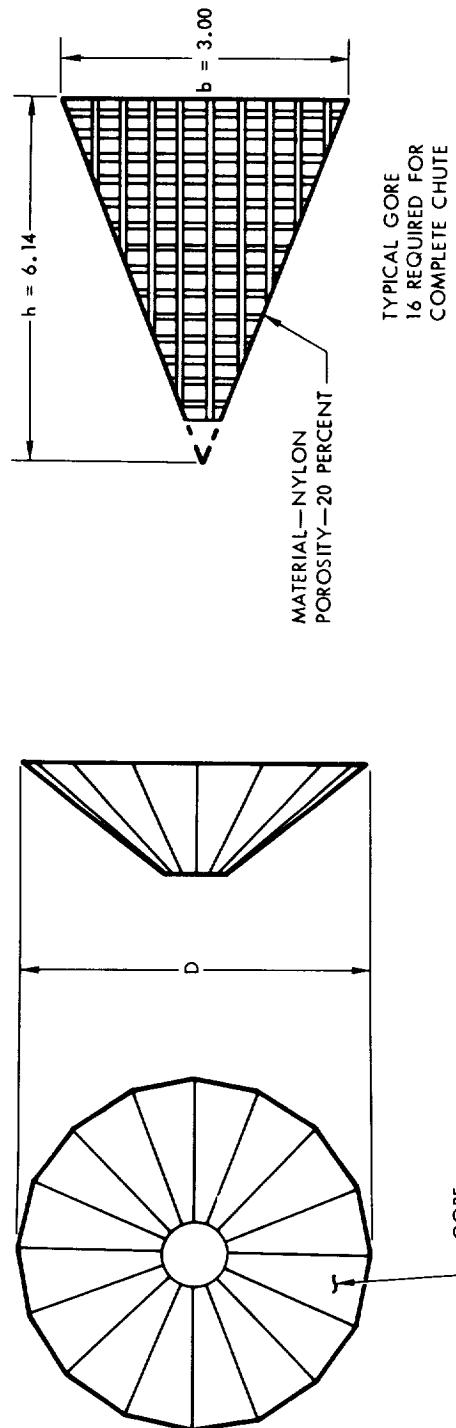
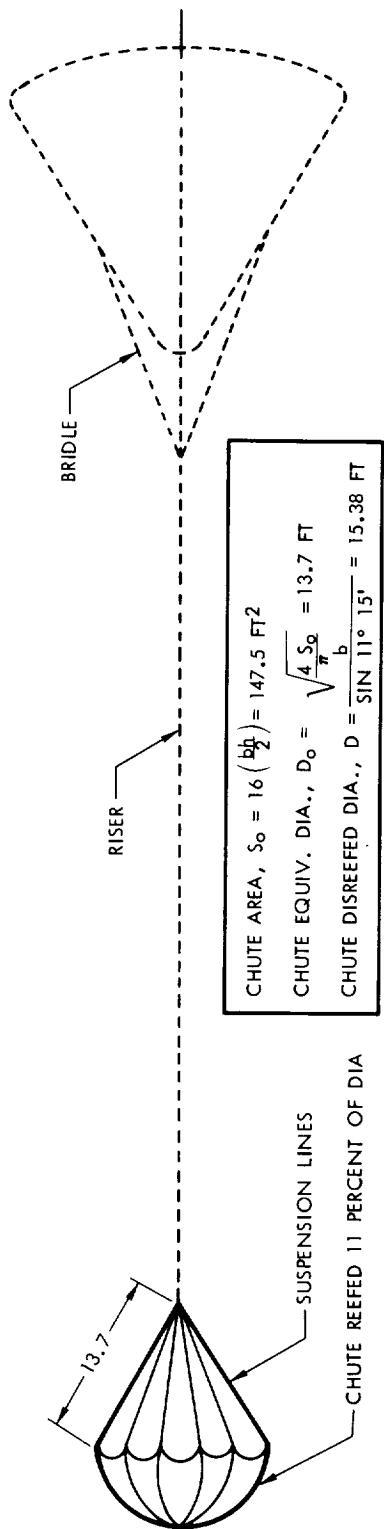
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q27

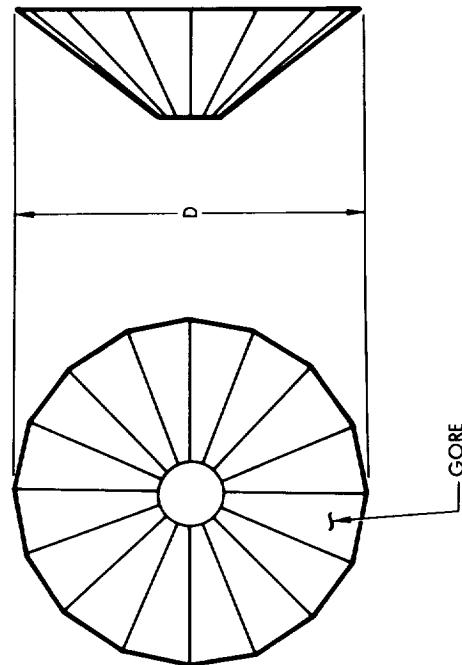
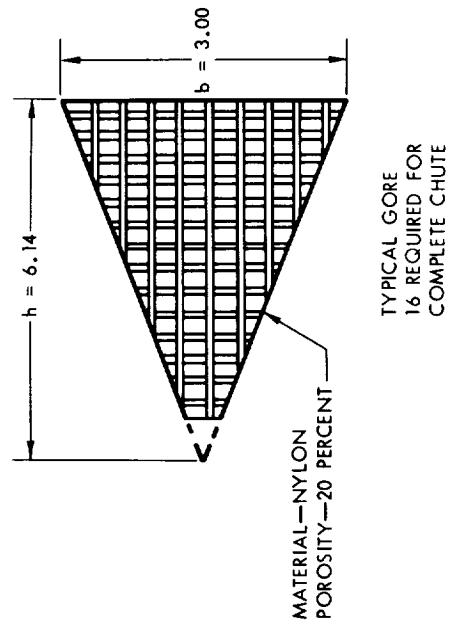
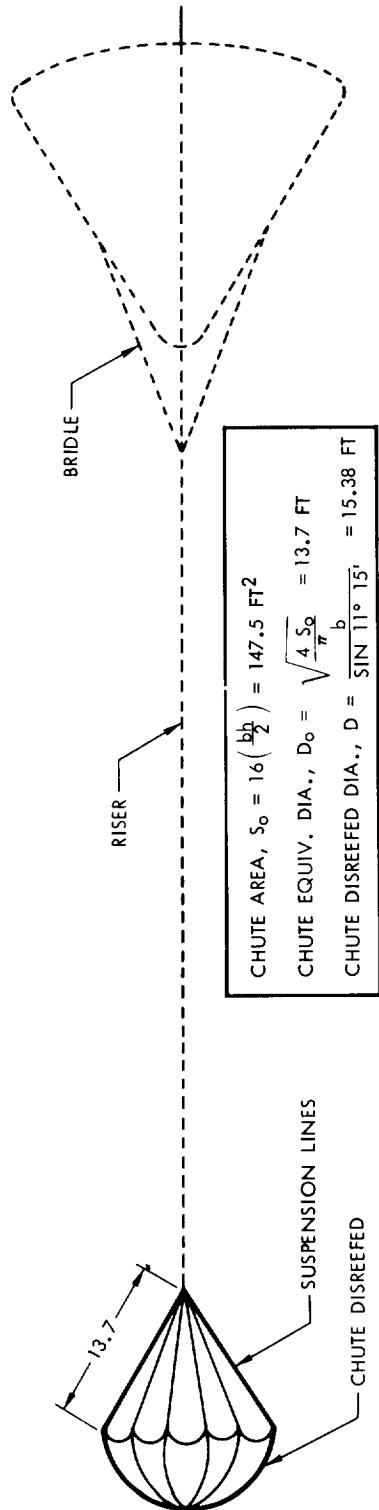
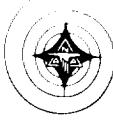
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q28

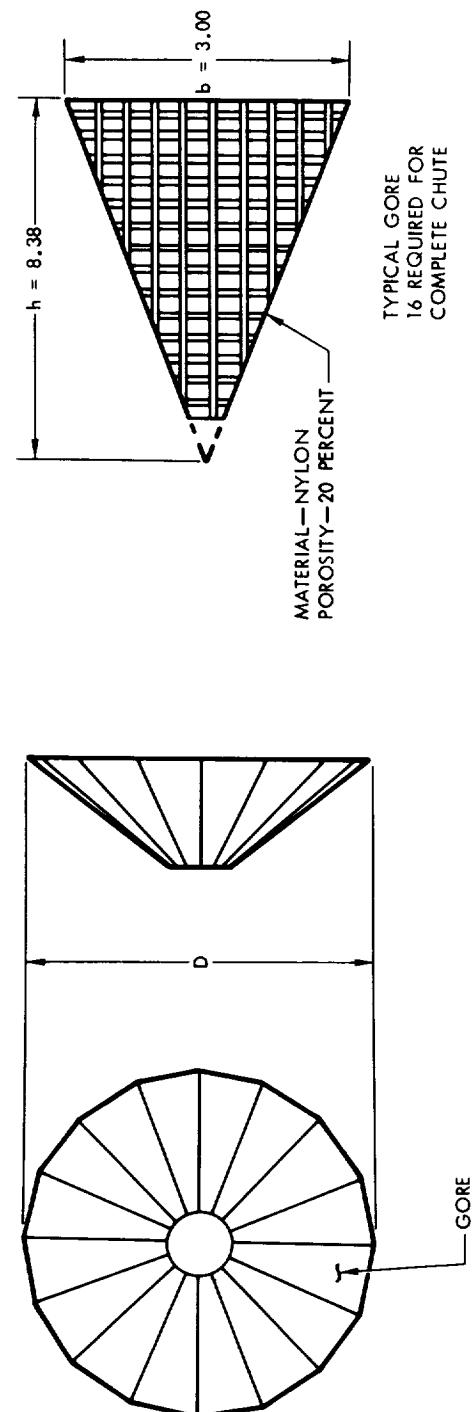
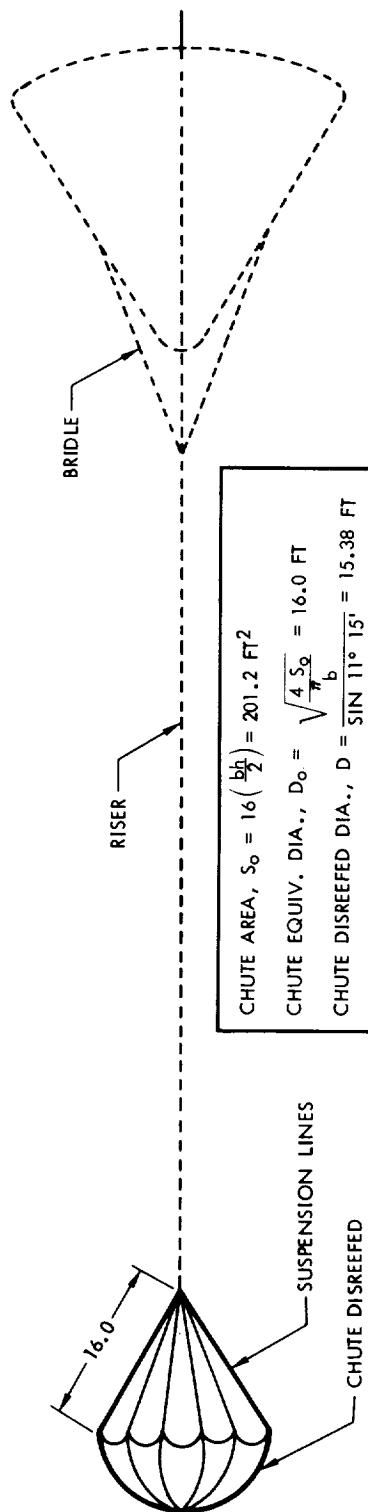
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q29

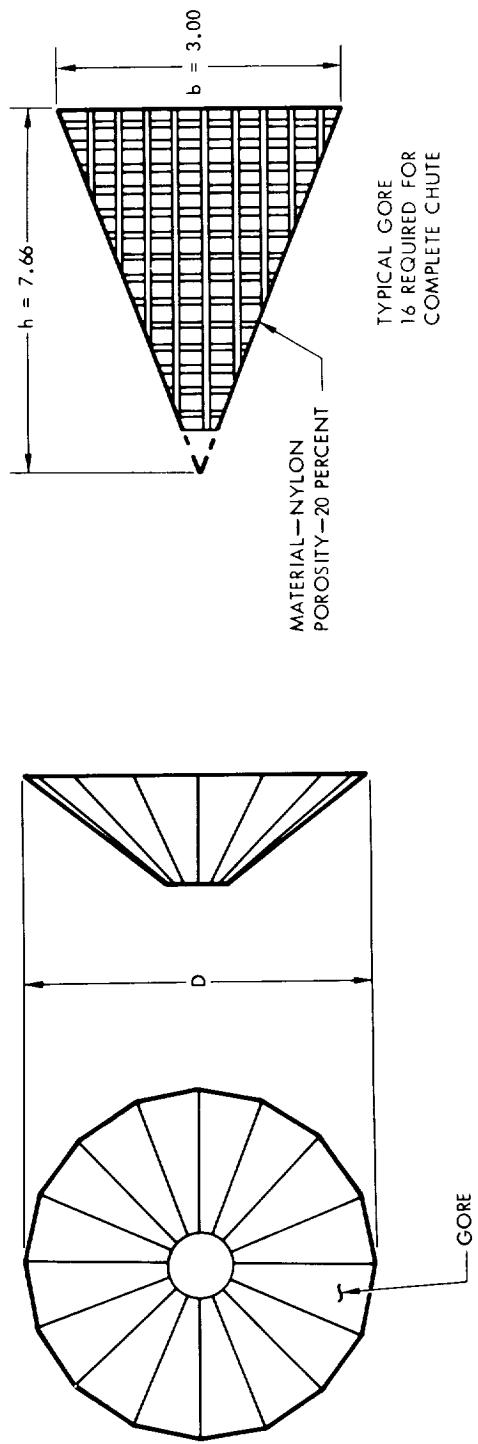
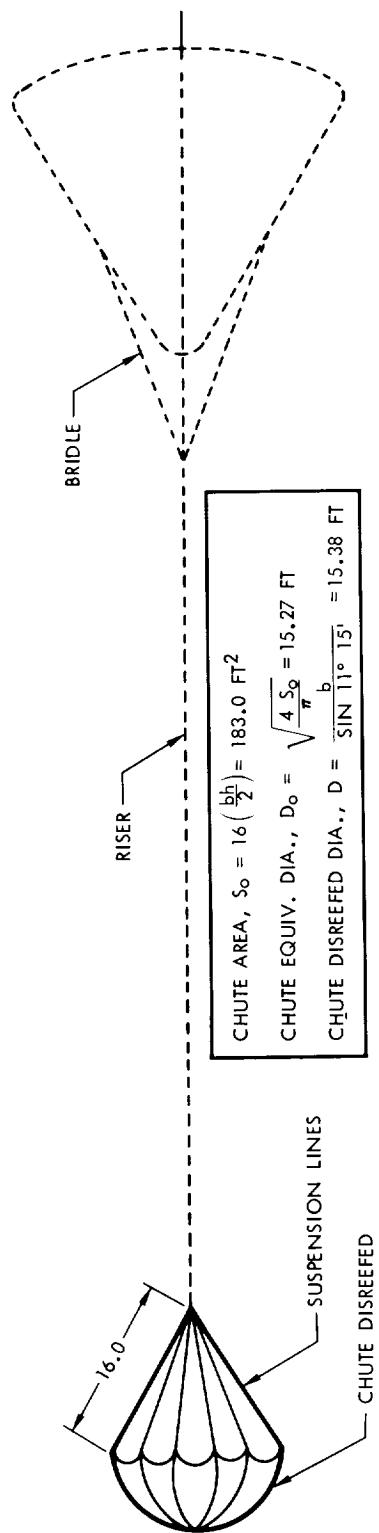
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN FEET

DROGUE CHUTE Q30

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN FEET

DRAWING NOT TO SCALE

DROGUE CHUTE Q31





## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
J	One drogue chute riser - Length = 600.00 in.; width = 1.40 in., thickness = 0.40 in.  Model scale (0.10) dimensions: Material = nylon; weight = 5 gm/ft; elongated 6 percent under 30.0-lb load.	W. L.	FSC-1 252	NAA WTL 62-	NAAL-489	None SID 63-274
		W. L.	FDC-1 22	NAA WTL 63-	NAAL-492	None SID 63-279
J <sub>2</sub>	Length = 620.0 in.; width = 1.40 in.; thickness = 0.40 in.  Model scale (0.10) dimensions: Material = nylon; weight = 5 gm/ft; elongated 6 percent under 30.0-lb load.	W. L.	FSC-1 252	NAA WTL 62-	NAAL-489	None SID 63-274
		W. L.	FDC-1 254	NAA WTL 62-	NAAL-490	None SID 63-279
		J. K.	FDC-1 255	NAA WTL 62-	LTDT	SID 62-1346
		W. L.	FDC-1 22	NAA WTL 63-	NAAL-492	49(16 by 16) SID 63-319 None SID 63-279
J <sub>3</sub>	Length = 760.0 in.; width = 1.40 in.; thickness = 0.40 in.  Model scale (0.10) dimensions: Material = nylon; weight = 5 gm/ft; elongated 6 percent under 30.0-lb load.	W. L.	FSC-1 252	NAA WTL 62-	NAAL-489	None SID 63-274
J <sub>4</sub>	Length = 920.0 in.; width = 1.40 in.; thickness = 0.40 in.	W. L.	FSC-1 252	NAA WTL 62-	NAAL-489	None SID 63-274

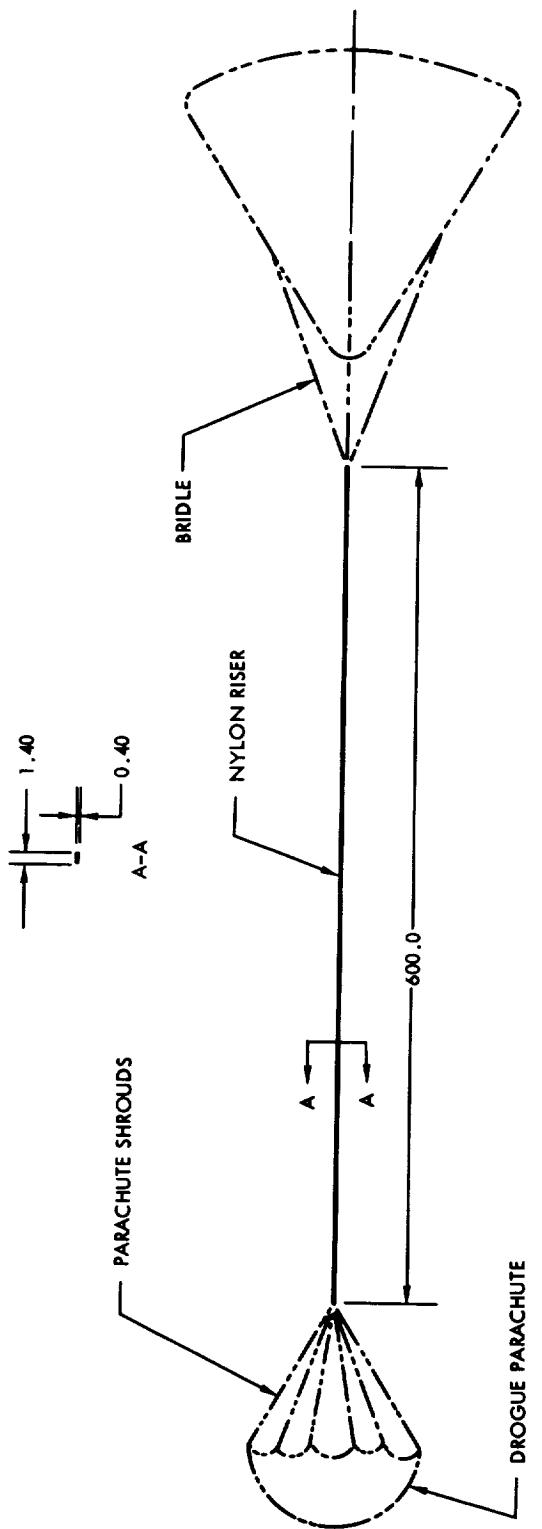


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
J <sub>4</sub> (Cont)	Model scale (0, 10) dimensions: Material = nylon; weight = 5 gm/ft; elongated 6 percent under 30. 0-1b load.	W. L. J. K.	FDC-1 FDC-1 FDC-1	NAA WTL 62- 254 NAA WTL 62- 255 NAA WTL 63- 22	NAAL-490 SID 63-279 SID 62-1346 49(16 by 16) NAAL-492	None None None None SID 63-279
J <sub>5</sub>	Length = 1230. 0 in.; width = 1. 40 in.; thickness = 0. 40 in.	W. L.	FSC-1	NAA WTL 62- 252	NAAL-489 SID 63-274	None
	Model scale (0, 10) dimensions: Material = nylon; weight = 5 gm/ft; elongated 6 percent under 30. 0-1b load.					
J <sub>6</sub>	Length = 1230. 0 in.; diameter = 0. 16 in.	W. L.	FSC-1	NAA WTL 62- 252	NAAL-489 SID 63-274	None
	Model scale (0, 10); Material = piano wire.					
J <sub>7</sub>	Length = 920. 0 in.; diameter = 0. 16 in.	W. L.	FSC-1	NAA WTL 62- 252	NAAL-489 SID 63-274	None
	Model scale (0, 10); Material = piano wire.					



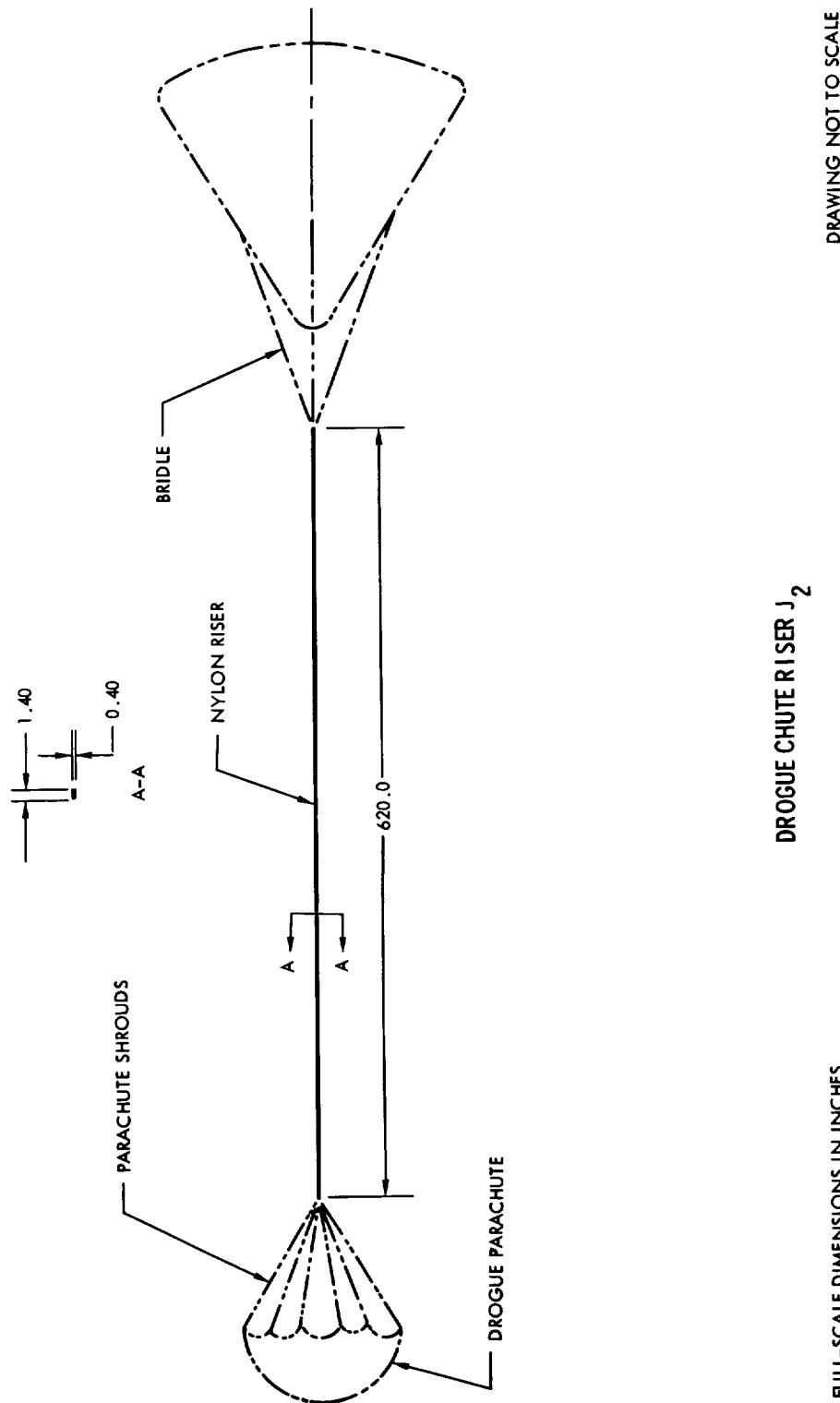
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
J <sub>8</sub>	Length = 620.0 in.; diameter = 0.16 in. Model scale (0.10); Material = piano wire.	W. L.	FSC-1	NAA WTL 62-252	NAAL-489 SID 63-274	None
J <sub>9</sub>	Length = 820.0 in.; width = 1.40 in.; thickness = 0.40 in. Model scale (0.10) dimensions: Material = nylon; weight = 5 gm/ft; elongated 6 percent under 30.0-lb load.	W. L.	FDC-1	NAA WTL 62-254	NAAL-490 SID 63-279	None
J <sub>10</sub>	Length = 520.0 in.; width = 1.40 in.; thickness = 0.40 in. Model scale (0.10) dimensions: Material = nylon; weight = 5 gm/ft; elongated 6 percent under 30.0-lb load.	W. L.	FDC-1	NAA WTL 62-254 22	NAAL-490 SID 63-279 NAAL-492 SID 63-279	None

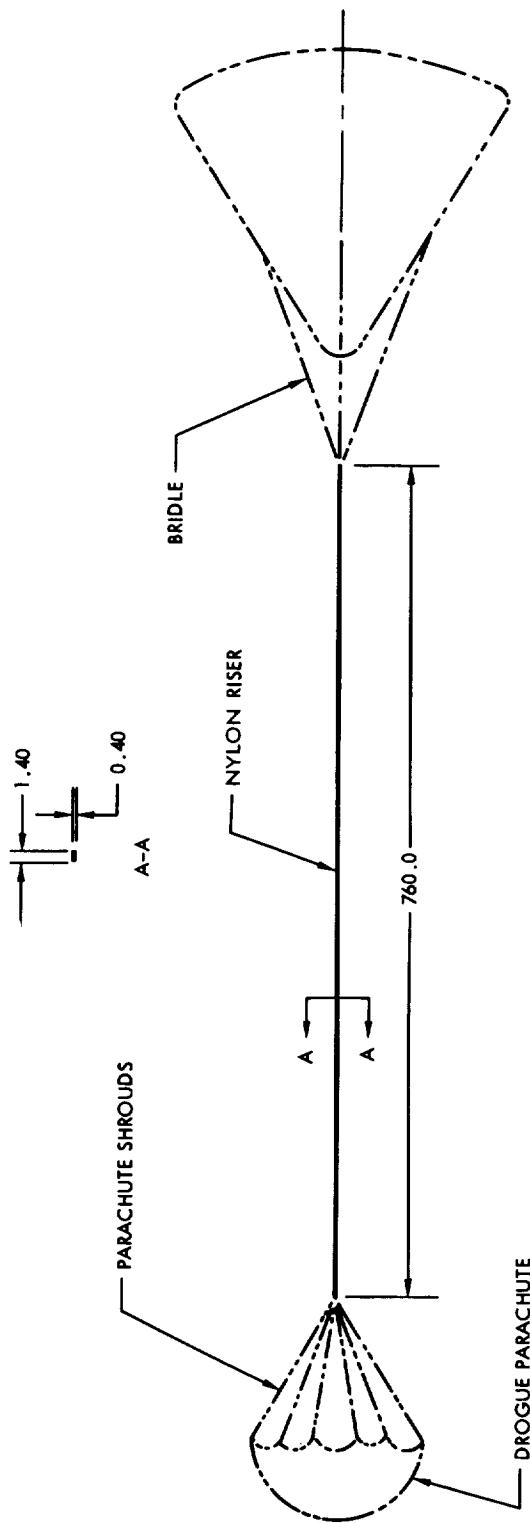


DROGUE CHUTE RISER (1)

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

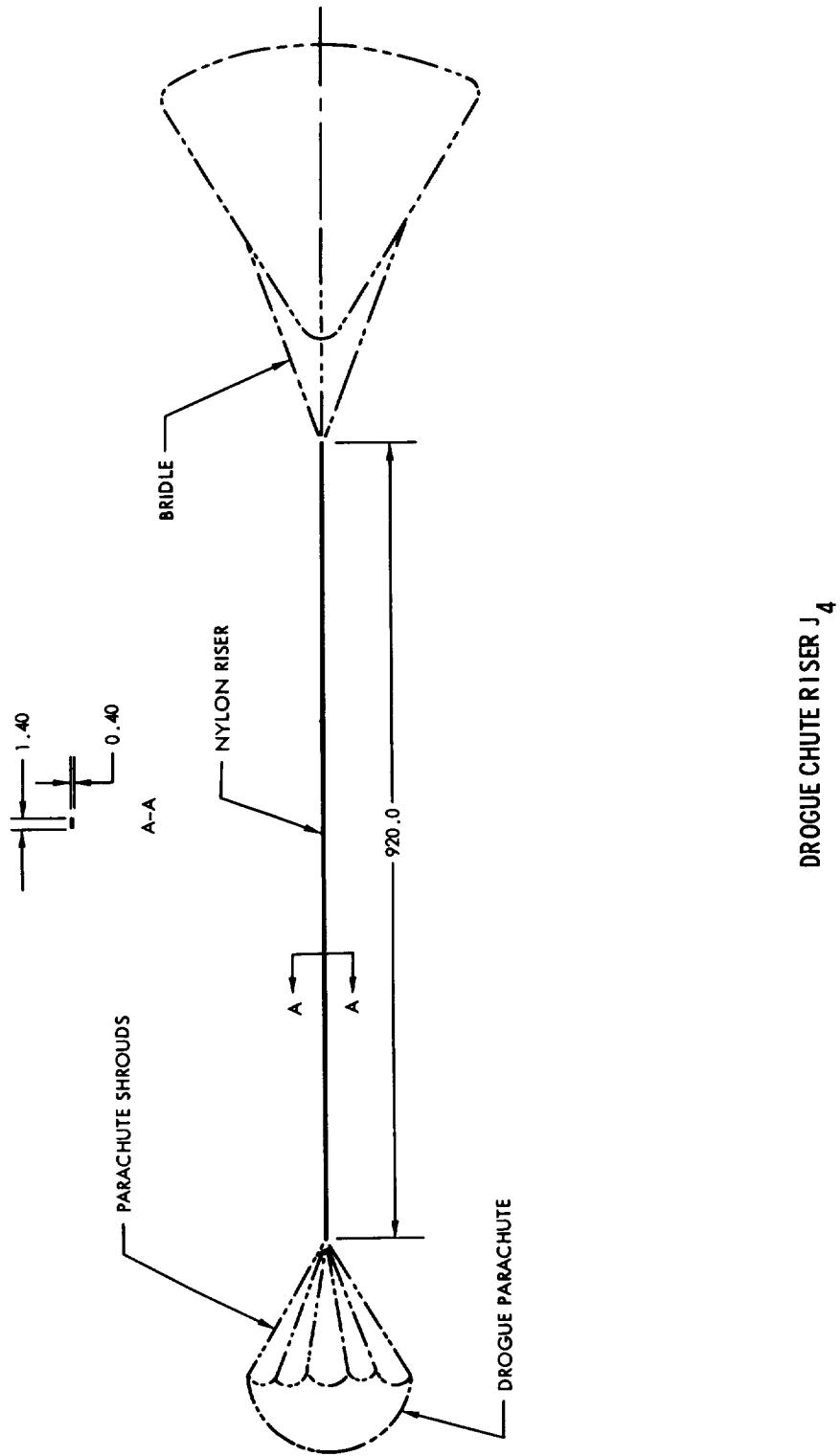
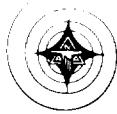




FULL-SCALE DIMENSIONS IN INCHES

DROGUE CHUTE RISER J<sub>3</sub>

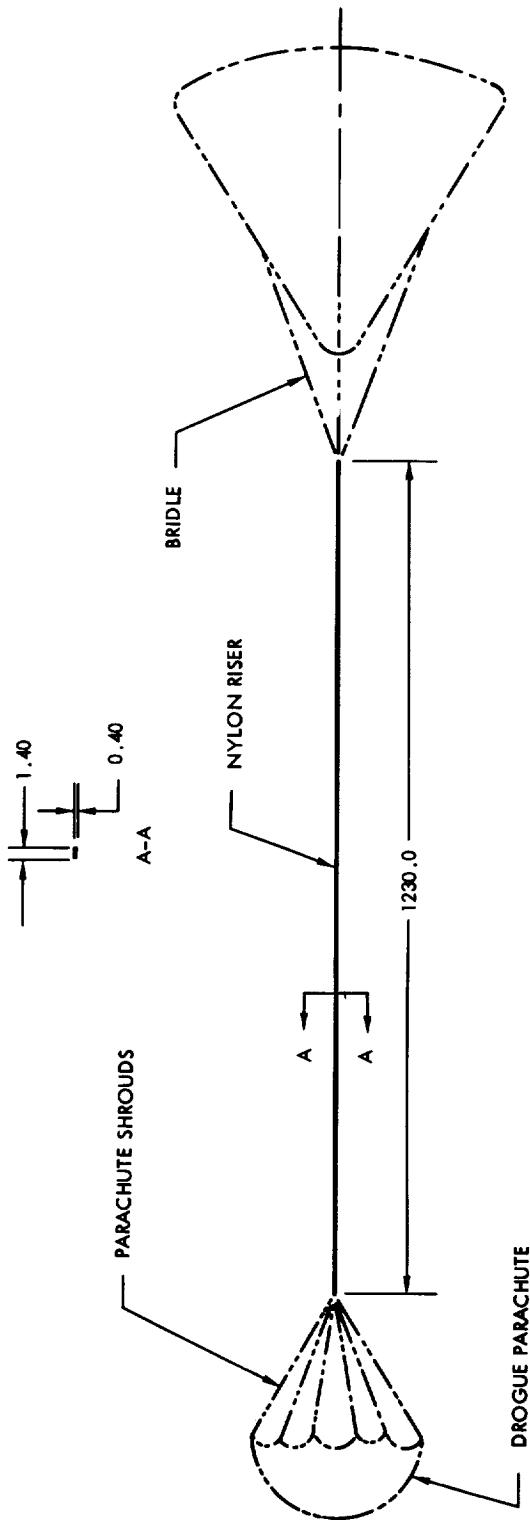
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

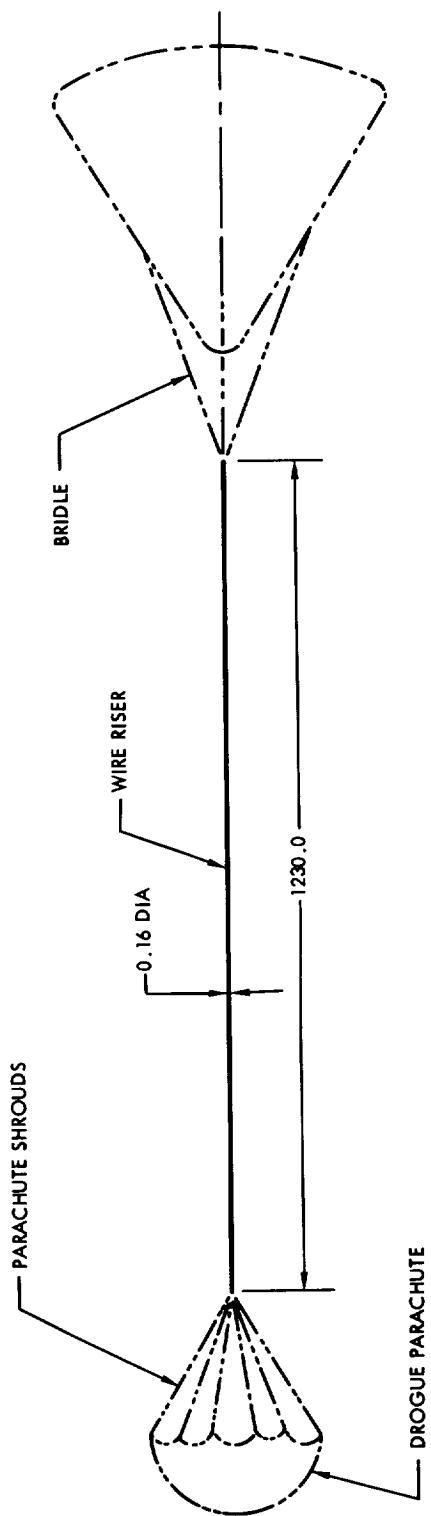
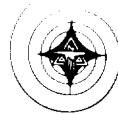
DROGUE CHUTE RISER J<sub>4</sub>

DRAWING NOT TO SCALE

DROGUE CHUTE RISER J<sub>5</sub>

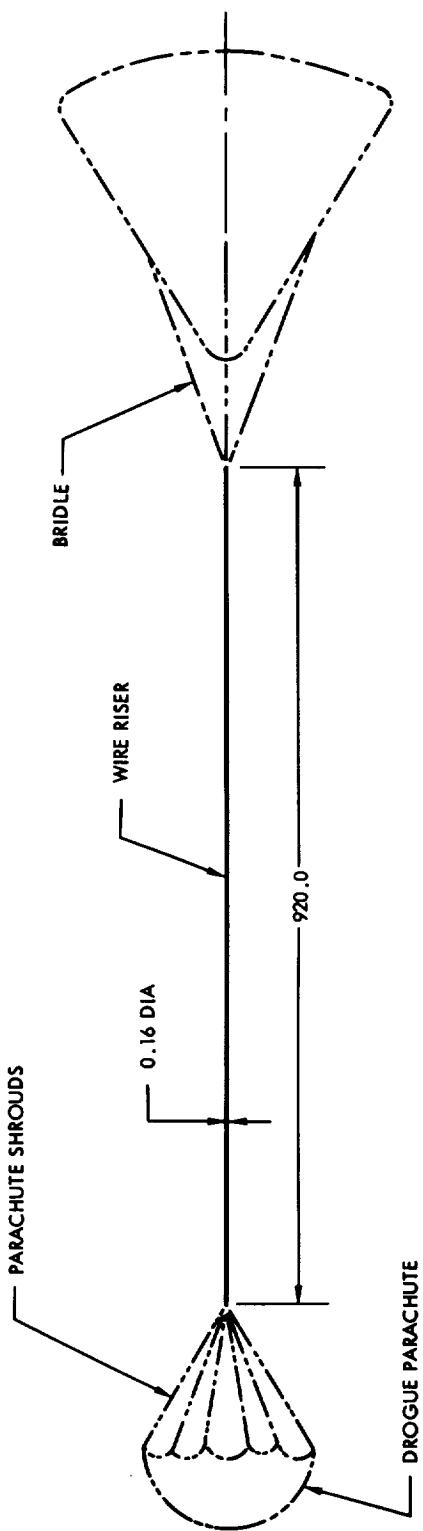
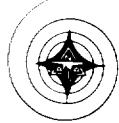
FULL -SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

DROGUE CHUTE RISER J<sub>6</sub>

FULL-SCALE DIMENSIONS IN INCHES

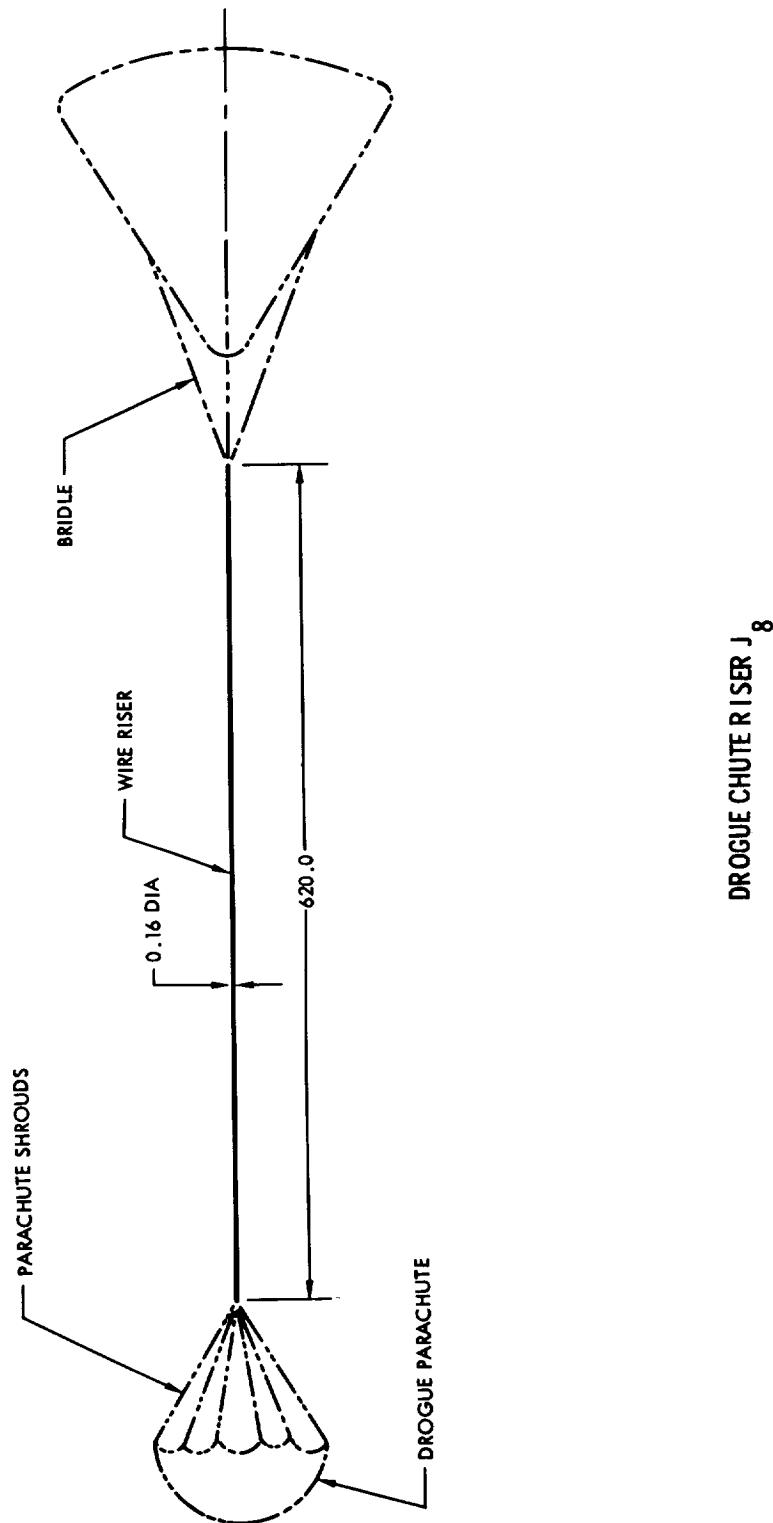
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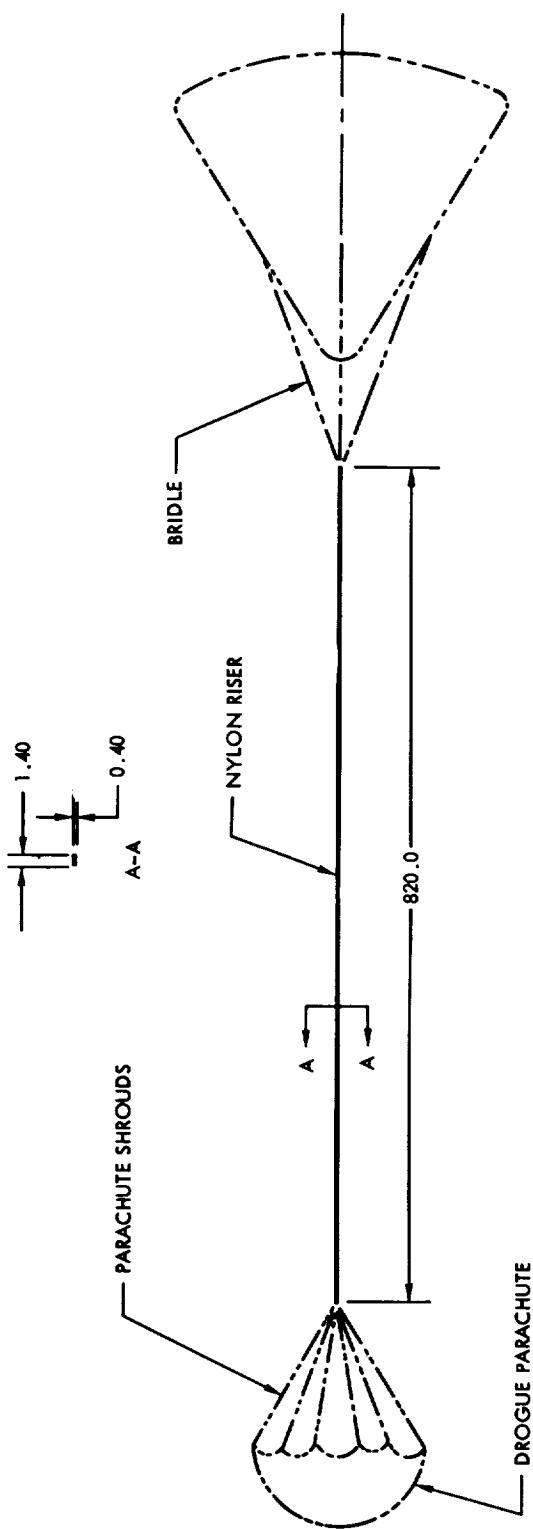


DRAWING NOT TO SCALE

DROGUE CHUTE RISER J<sub>7</sub>

FULL-SCALE DIMENSIONS IN INCHES

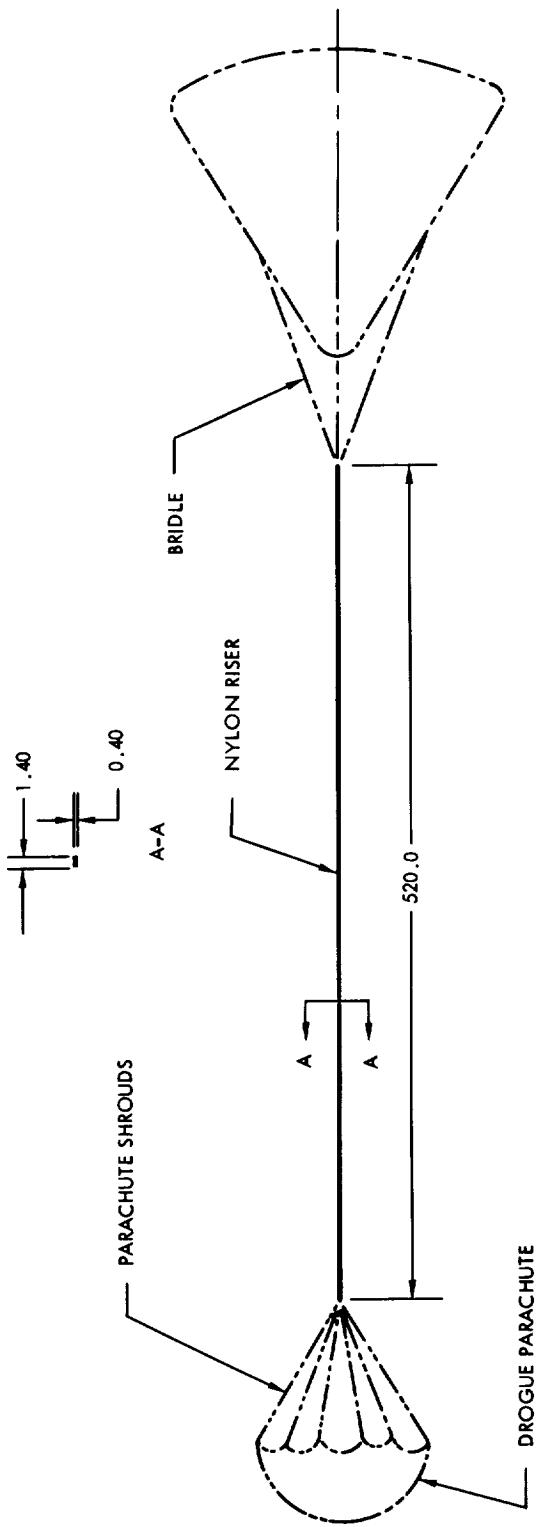




FULL-SCALE DIMENSIONS IN INCHES

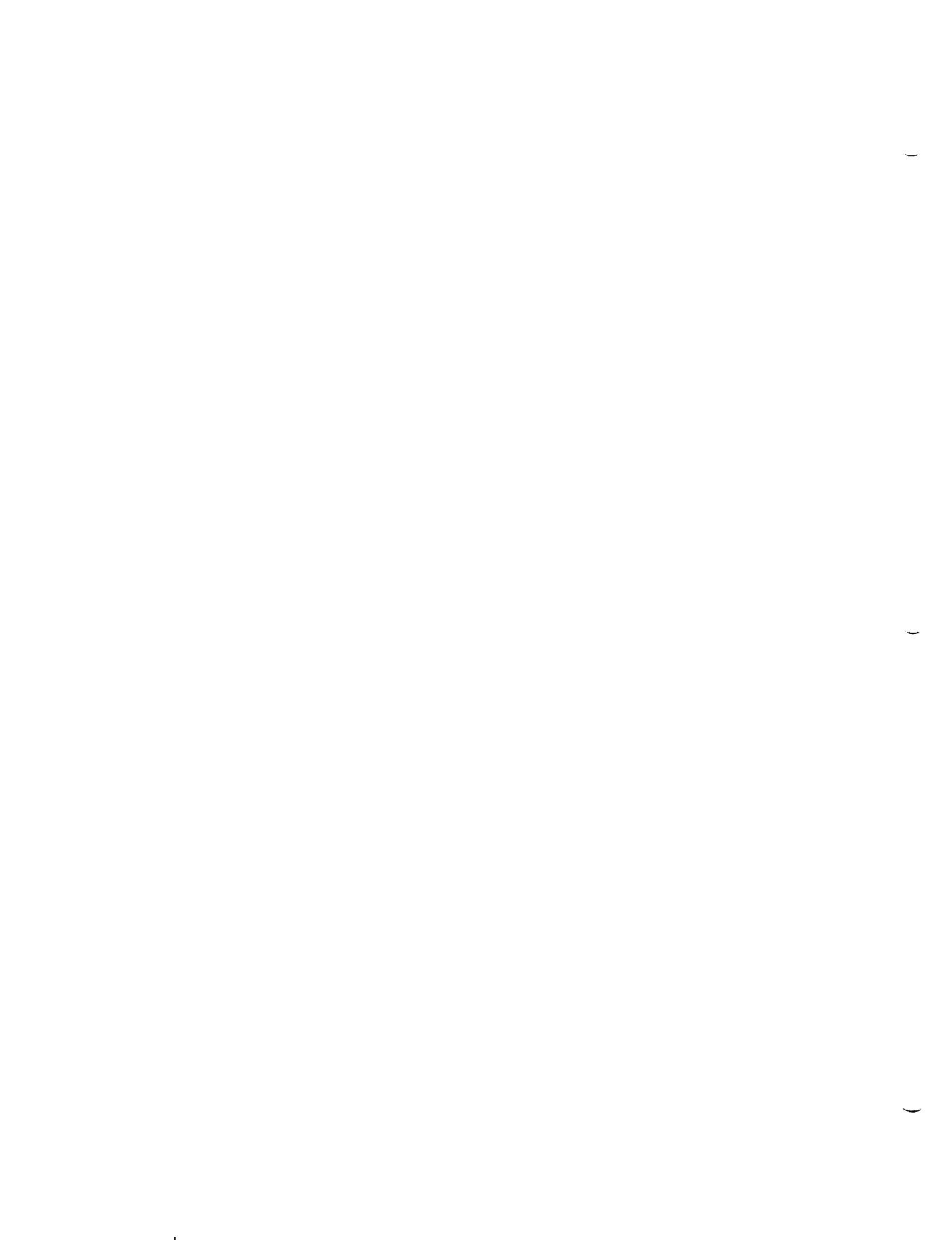
DROGUE CHUTE RISER J<sub>9</sub>

DRAWING NOT TO SCALE

DROGUE CHUTE RISER J<sub>10</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE





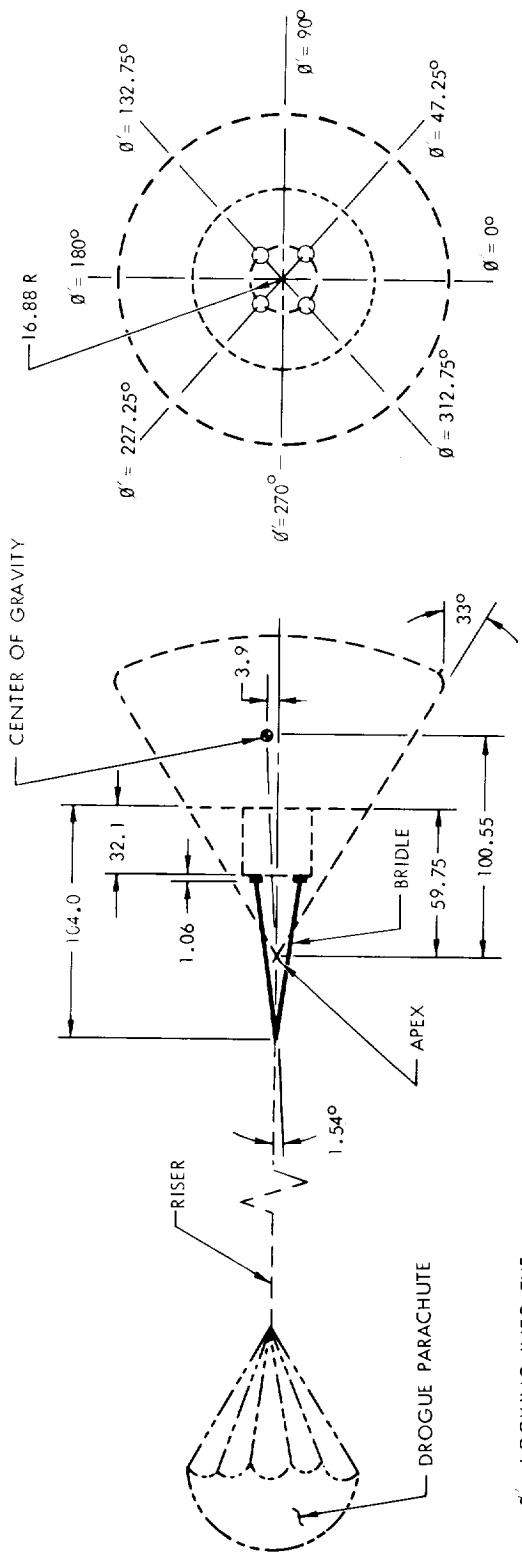
Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
H	Bridle - Consists of four nylon lines each of which converges from its attach point on the command module to the confluence point located 44.25 in. forward of the command module apex on the command module centerline. The attach points to the command module are located 27.65 in. aft of command module apex at a 16.88 in. radius and radially at $\phi' = 47.25, 132.75, 227.25$ and $312.75$ deg. There is an angle, $\beta = 1.54$ deg, which is included between the command module axis of symmetry and a line joining the center of gravity and the confluence point. This angle also lies in the $\phi' = 0$ deg plane of symmetry. The center of gravity is located 100.55 in. aft of command module apex and 3.90 in. above module centerline.	W. L. J. K. W. L.	FDC-1 FDC-1 FDC-1	7121-01129-5 7121-01129-5 7121-01129-5	NAAL-490 LTDT 49(16 by 16) NAAL-492	None SID 63-279 SID 62-1346 SID 63-319 None SID 63-279

Model scale (0.10). Material  
= 200-lb test nylon line.



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
H2	Same as H except the attach points to the command module are located 59.75 in. aft of command module apex and at a 35.0-in. radius.	W. L.	FDC-1	7121-01129-11	NAAL-490	None SID 63-279
H3	Same as H except confluence point is located 44.25 in. forward of the command module apex and 21.3 in. above command module centerline. The attach points to the command module are located 27.65 in. aft of module apex (radius = 16.88 in. and $\phi' = 132.75$ and $227.25$ deg) and 59.75 in. aft of module apex (radius = 35.0 in. and $\phi' = 47.25$ and $312.75$ deg); $\beta = 9.87$ deg.	W. L.	FDC-1	7121-01129-17	NAAL-490	None SID 63-279
H4	Same as H except with three nylon lines. Radial locations, $\phi'$ , on the attach points to the command module = 47.25, 180, and 312.75 deg.	W. L.	FDC-1	7121-01129-29	NAAL-490	None SID 63-279
H5	Same as H except the confluence point is located 14.25 in. forward of the command module apex; $\beta = 1.95$ deg.	W. L.	FDC-1	7121-01129-3	NAAL-490	None SID 63-279

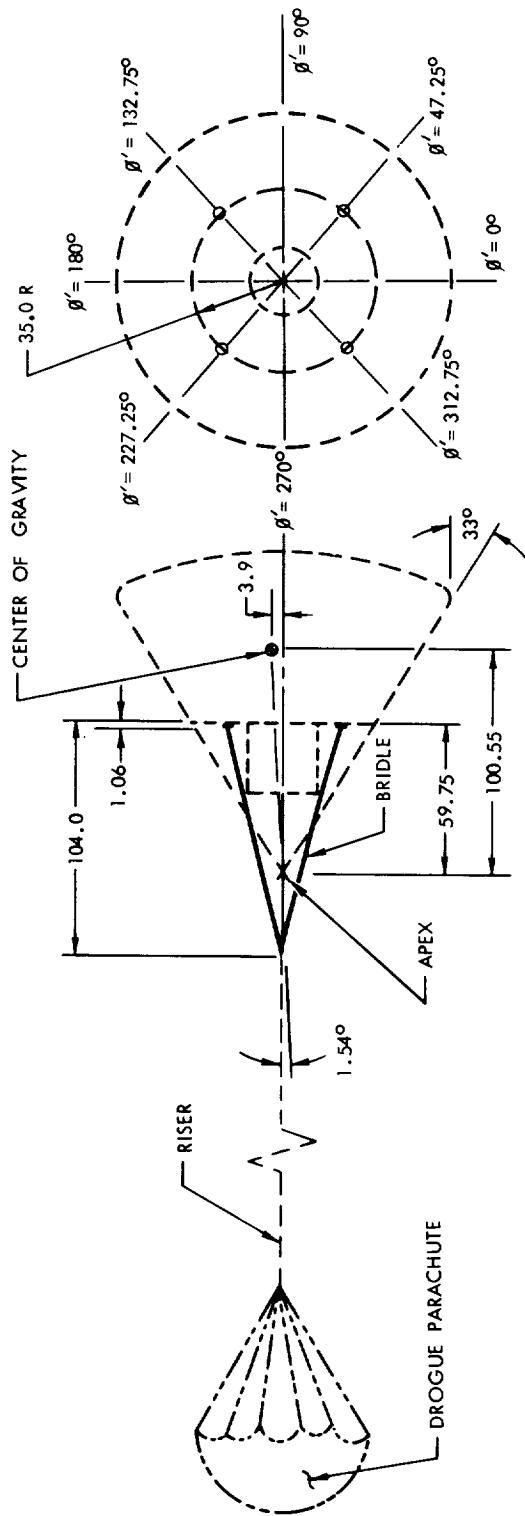


$\theta'$  - LOOKING INTO THE  
AIRSTREAM (HEAT SHIELD  
FORWARD) AND MEASURED  
IN A CLOCKWISE DIRECTION.

DRAWING NOT TO SCALE

BRIDLE H

FULL-SCALE DIMENSIONS IN INCHES

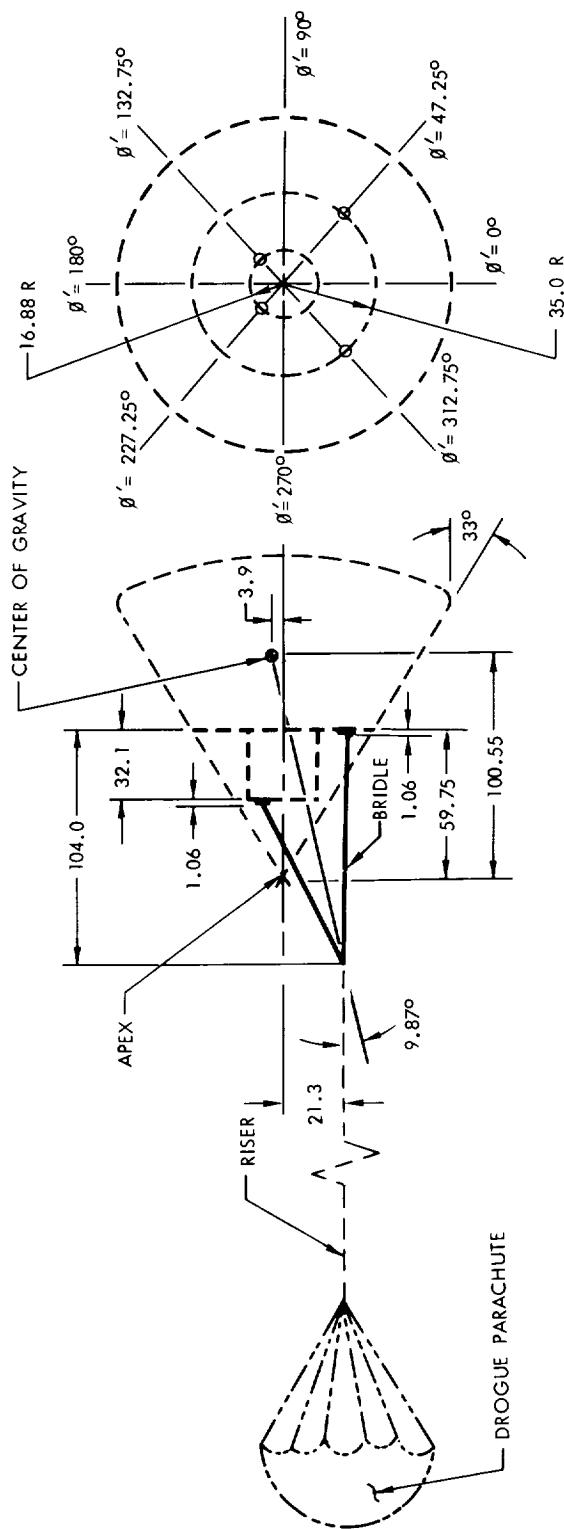


$\phi'$  - LOOKING INTO THE  
AIRSTREAM (HEAT SHIELD  
FORWARD) AND MEASURED  
IN A CLOCKWISE DIRECTION:

FULL-SCALE DIMENSIONS IN INCHES

BRIDLE H2

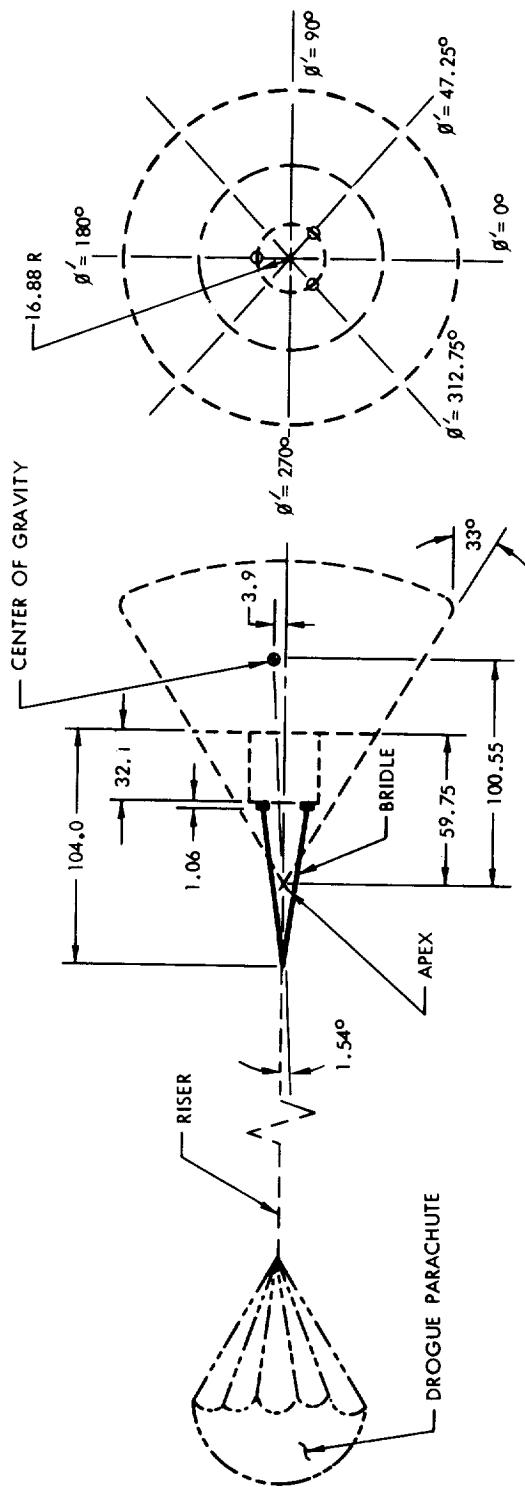
DRAWING NOT TO SCALE

BRIDLE H<sub>3</sub>

$\phi'$  - LOOKING INTO THE  
AIRSTREAM (HEAT SHIELD  
FORWARD) AND MEASURED  
IN A CLOCKWISE DIRECTION.

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

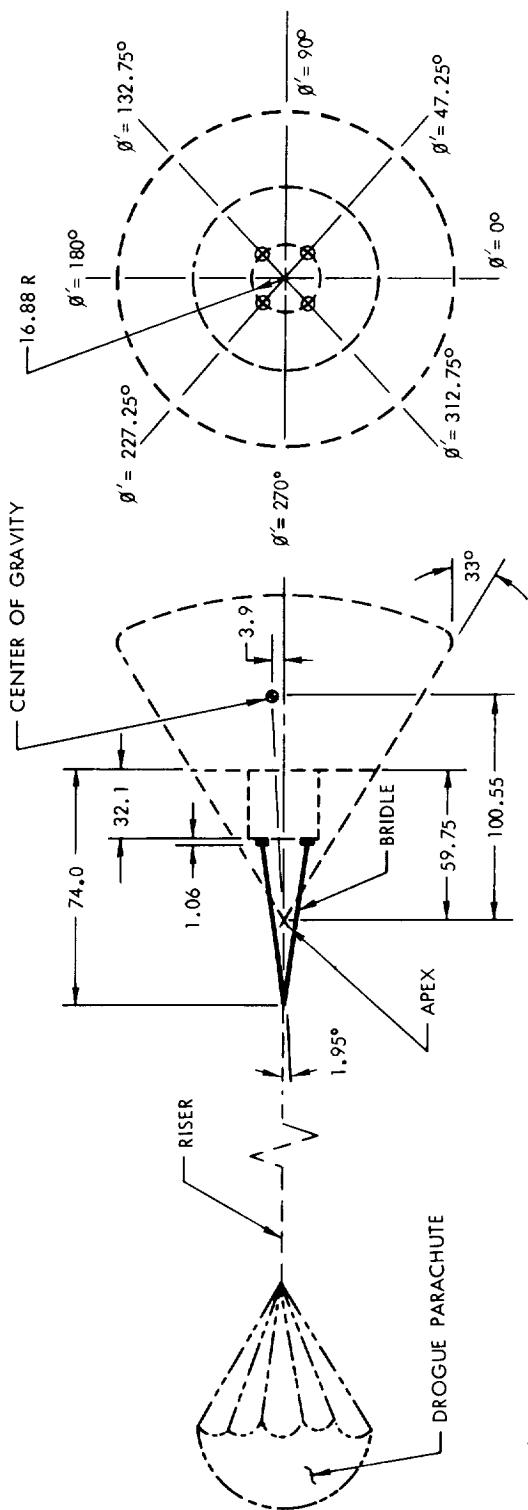


$\phi'$  - LOOKING INTO THE  
AIRSTREAM (HEAT SHIELD  
FORWARD) AND MEASURED  
IN A CLOCKWISE DIRECTION:

BRIDLE H<sub>4</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



$\theta'$  - LOOKING INTO THE  
AIRSTREAM (HEAT SHIELD  
FORWARD) AND MEASURED  
IN A CLOCKWISE DIRECTION:

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

BRIDLE H<sub>5</sub>





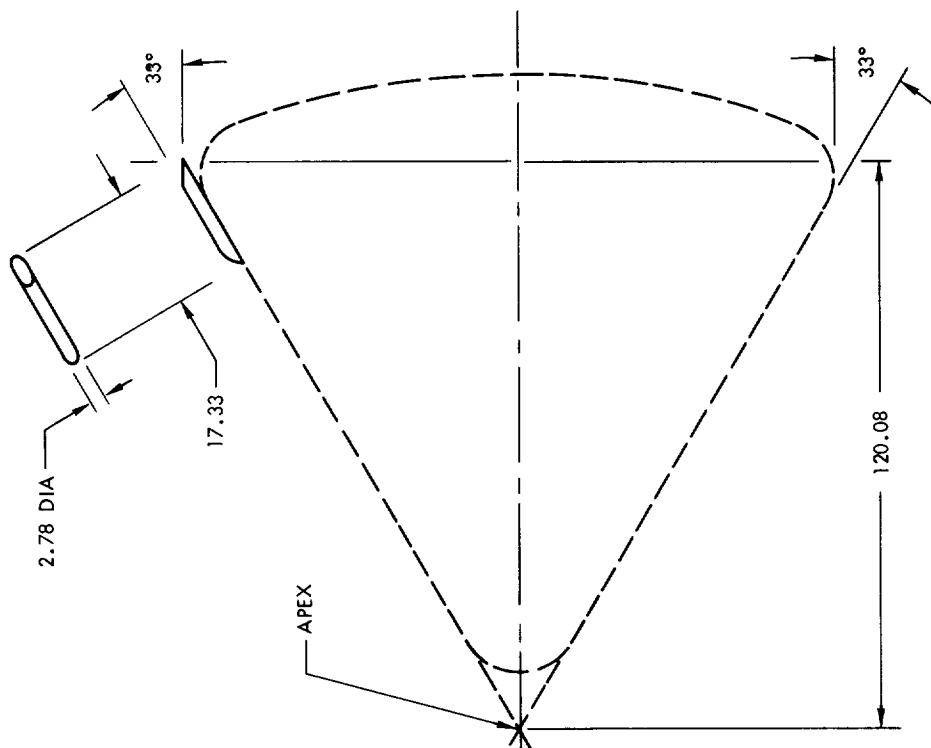
Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
V	Vent - Radial location, $\phi = 0$ deg (top centerline). Length (measured along module surface) = 17.33 in.; diameter = 2.78 in. Aft end is cut parallel to command module center-line. Aft end of vent is located 120.08 in. aft of module apex. Module vertex semiangle = 33 deg.	J. S.	PS-3	None	LTPPT 275(8 by 8)	SID 63-457
V <sub>2</sub>	Same as V except radial location, $\phi = 180$ deg.	H. T. G. U.	FD-6	None	LTPPT 275(8 by 8) Ames 43 (12 by 12)	SID 63-457 SID 63-1366
V <sub>3</sub>	Same as V except radial location, $\phi = 348.75$ deg.	J. S.	PS-3	None	LTPPT 275(8 by 8) Ames 43 (12 by 12)	SID 63-457 SID 63-1366
V <sub>4</sub>	Radial location, $\phi = 339$ deg. Length (measured along module surface) = 17.33 in.; diameter = 2.67 in. Aft end of vent located 119.13 in. aft of module apex. Module vertex semiangle = 33 deg.	J. D.	FS-3		AEDC Tunnel A VT-1244 -A00 AEDC Tunnel C VT-1244 -C00	



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
V <sub>5</sub>	Radial location, $\phi = 340$ deg. Length (measured along module surface) = 17.48 in.; diameter = 2.67 in. Aft end of vent located 120.42 in. aft of module apex. Module vertex semi-angle = 33 deg.	B. C.	FS-2	7121-01048-8	Ames 066(8 by 7) 066(9 by 7) 066(11 by 11)	None
[V <sub>6 V7</sub> ]	Two Vents - Radial locations, $\phi$ , and lengths (measured parallel to module centerline) = 160 deg, 66.51 in. and 340 deg, 36.51 in. respectively; diameter = 3.00 in. Each vent is located 104.86 in. aft of module apex and extends aft of the command module - service module contact points.	J.S. P.B.	PSTL-2	7121-01191-8	Ames 37(9 by 7) 37(11 by 11)	SID 63-1027
[V <sub>7 V6</sub> ]	Two Vents - Same as [V <sub>6 V7</sub> ] except both vents are interchanged radially only. The other dimensions remain the same.	J.S. P.B.	PSTL-2	7121-01191-8	Ames 37(9 by 7) 37(11 by 11)	SID 63-1027
V <sub>8</sub>	One vent - Radial location, $\phi = 340$ deg. Length (measured along module surface) = 19.03 in.; diameter = 3.00 in. Aft end of vent is located 120.71 in. aft of module apex and is cut 20 deg to the module centerline. Module vertex semi-angle = 33 deg.	D. E.	HL-1C	7121-01274-9		

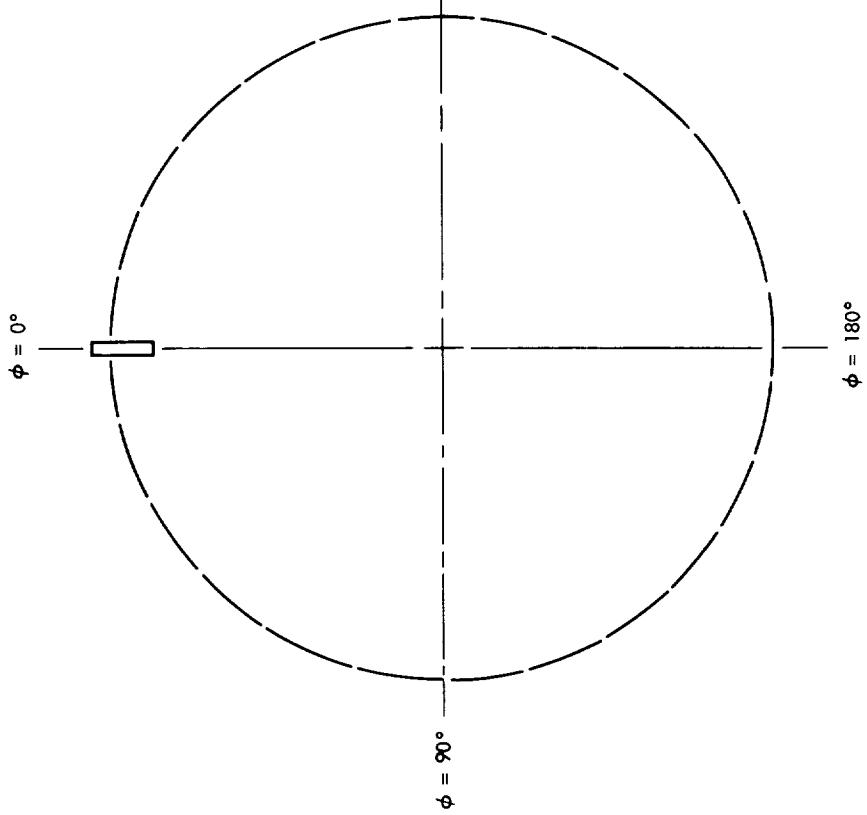


Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
					Pretest and Data Reports
V9	One vent - Radial location, $\emptyset = 340$ deg. Length (measured along module surface) = 18.50 in.; diameter = 3.00 in. Aft end of vent is located 120.39 in. aft of module apex. Module vertex semiangle = 33 deg.	J.S. P.B.	FS-10		

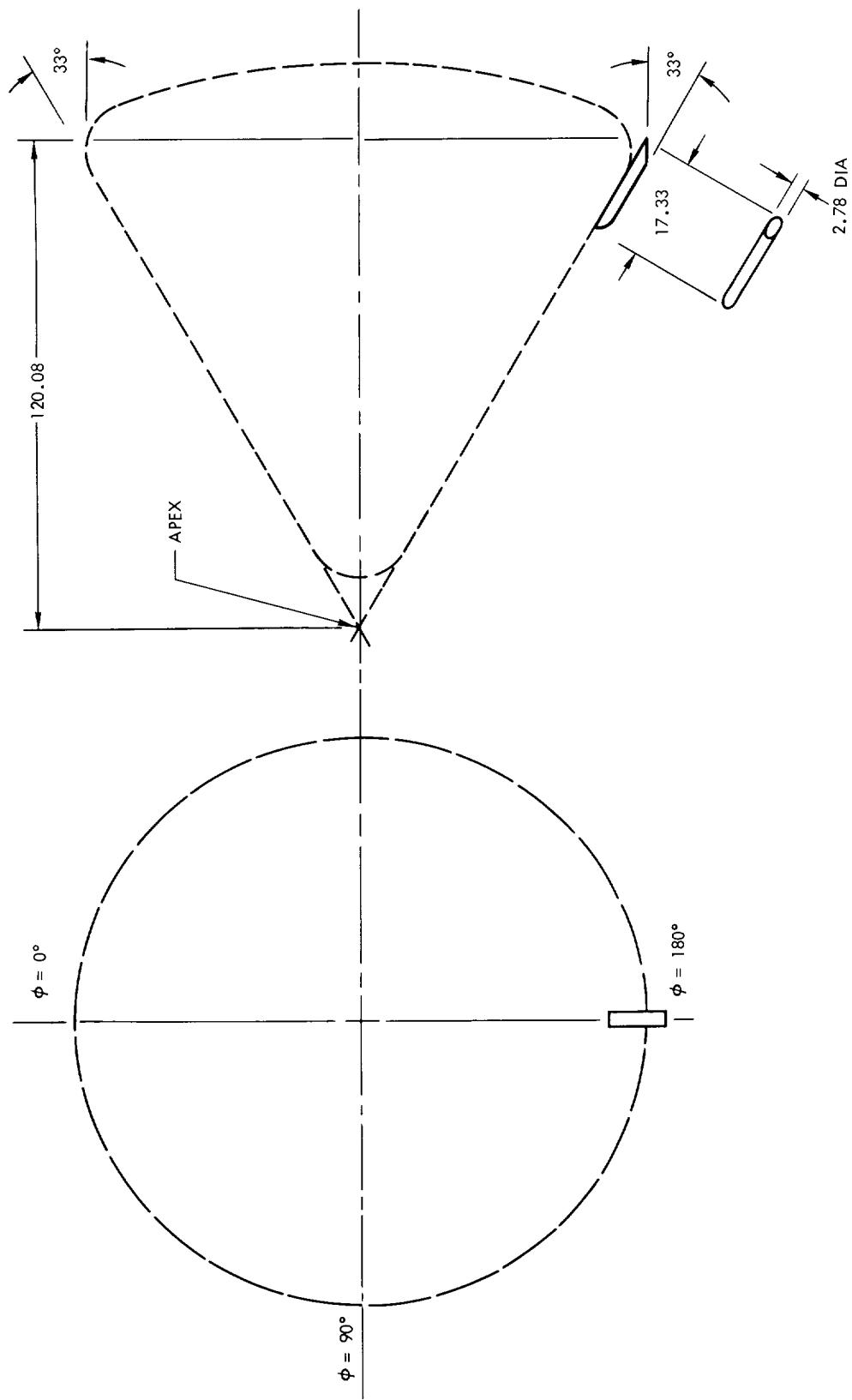


DRAWING NOT TO SCALE

VENT V



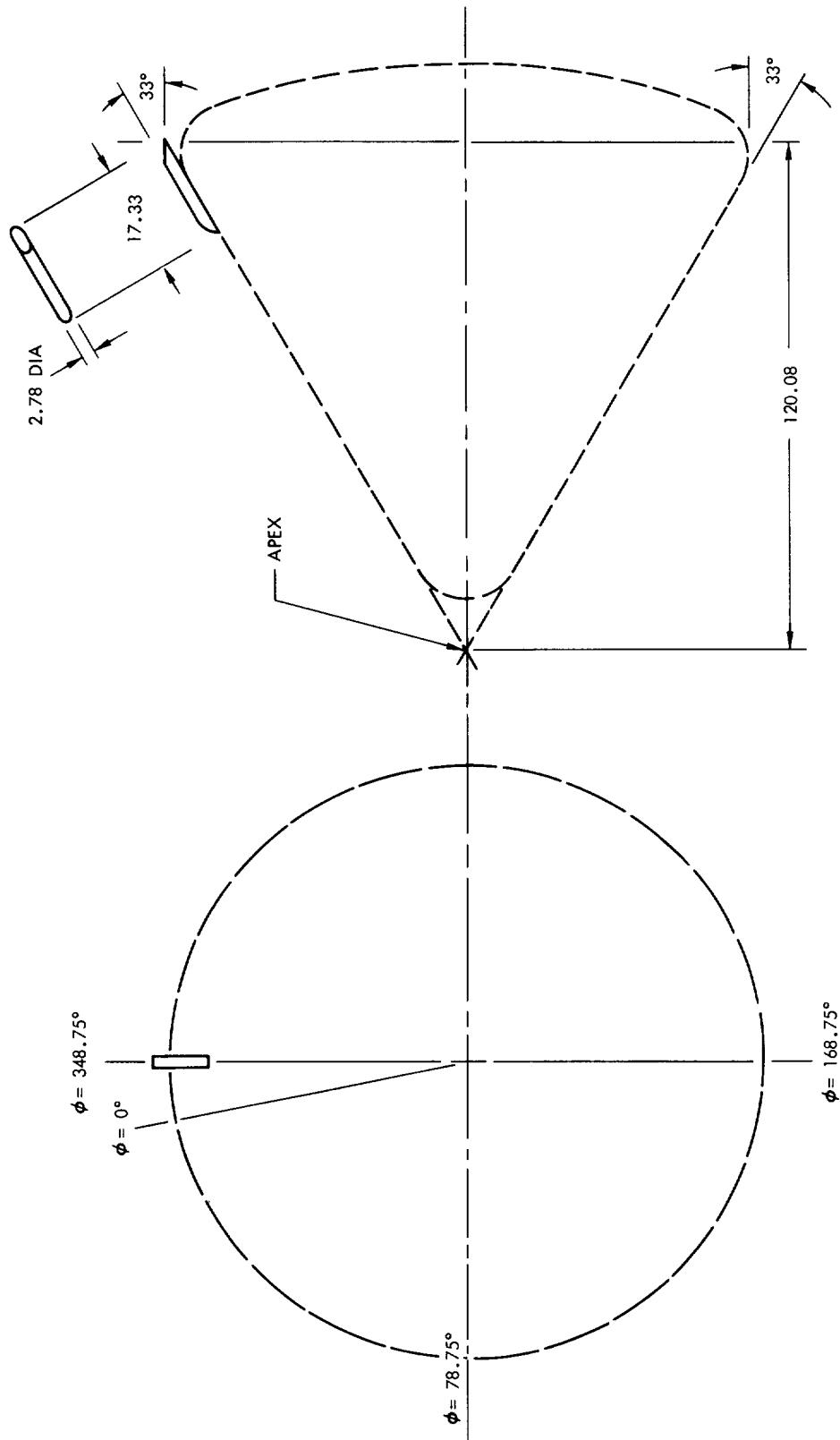
FULL-SCALE DIMENSIONS IN INCHES



DRAWING NOT TO SCALE

VENT V<sub>2</sub>

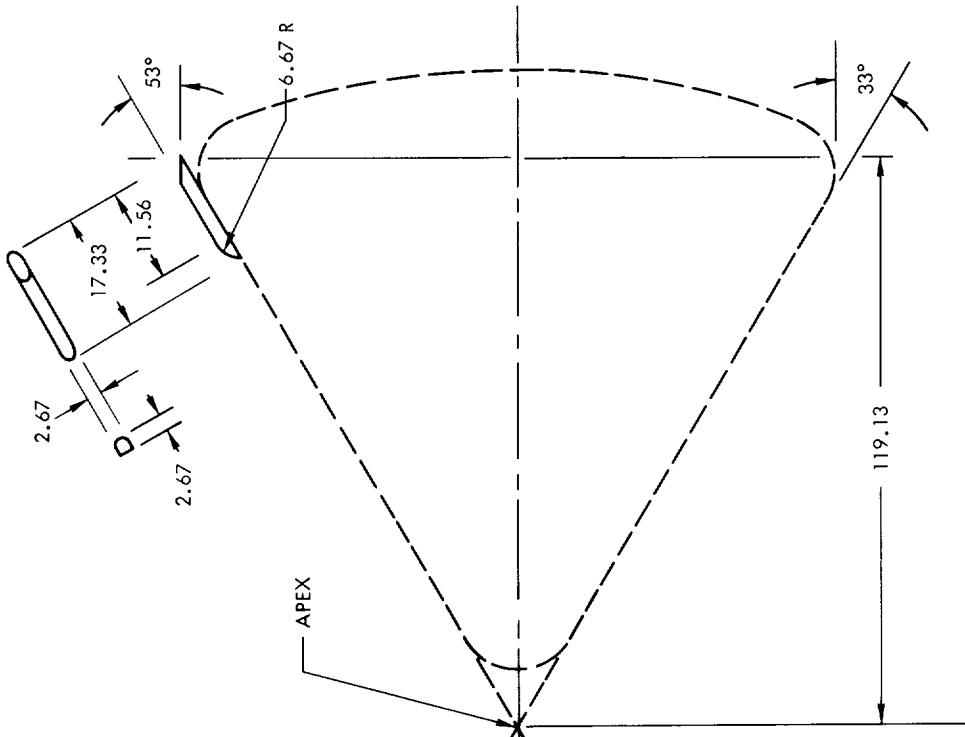
FULL-SCALE DIMENSIONS IN INCHES



DRAWING NOT TO SCALE

VENT V<sub>3</sub>

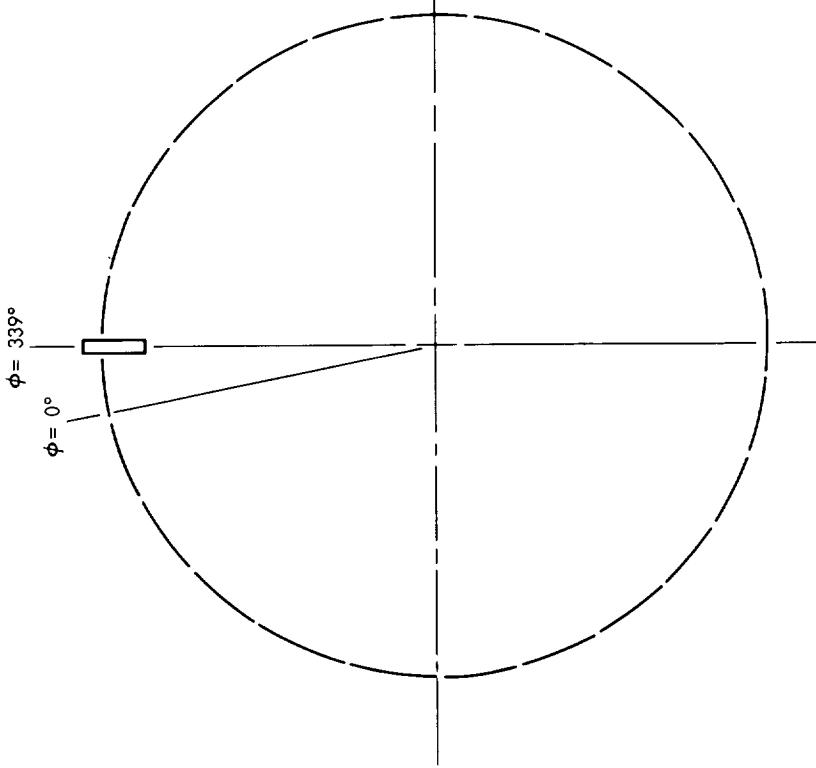
FULL-SCALE DIMENSIONS IN INCHES

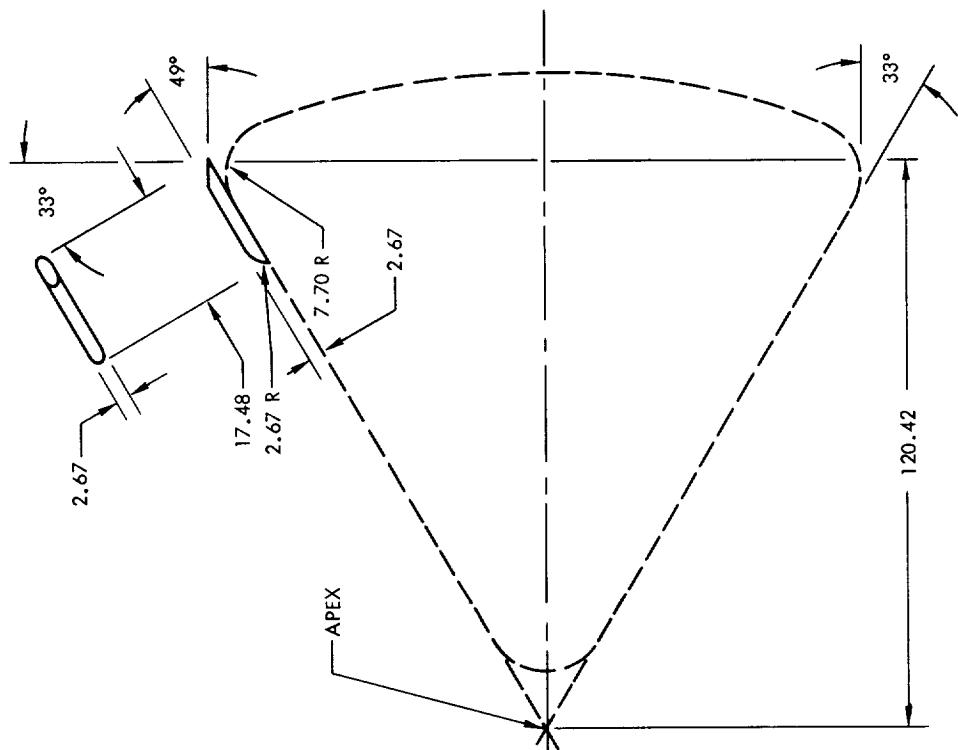


DRAWING NOT TO SCALE

VENT V<sub>4</sub>

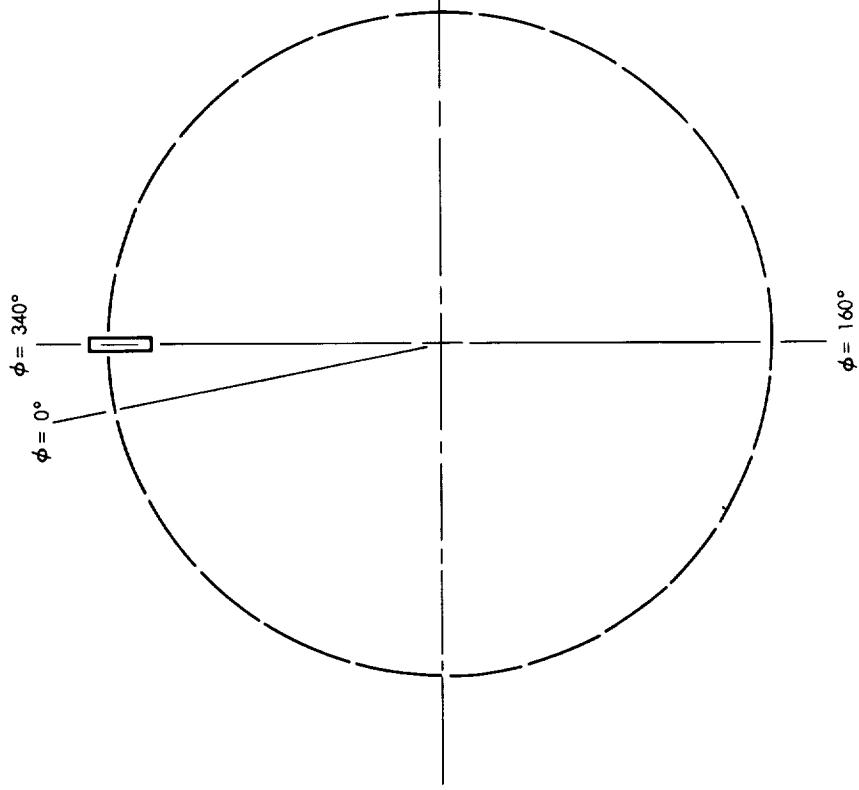
FULL-SCALE DIMENSIONS IN INCHES



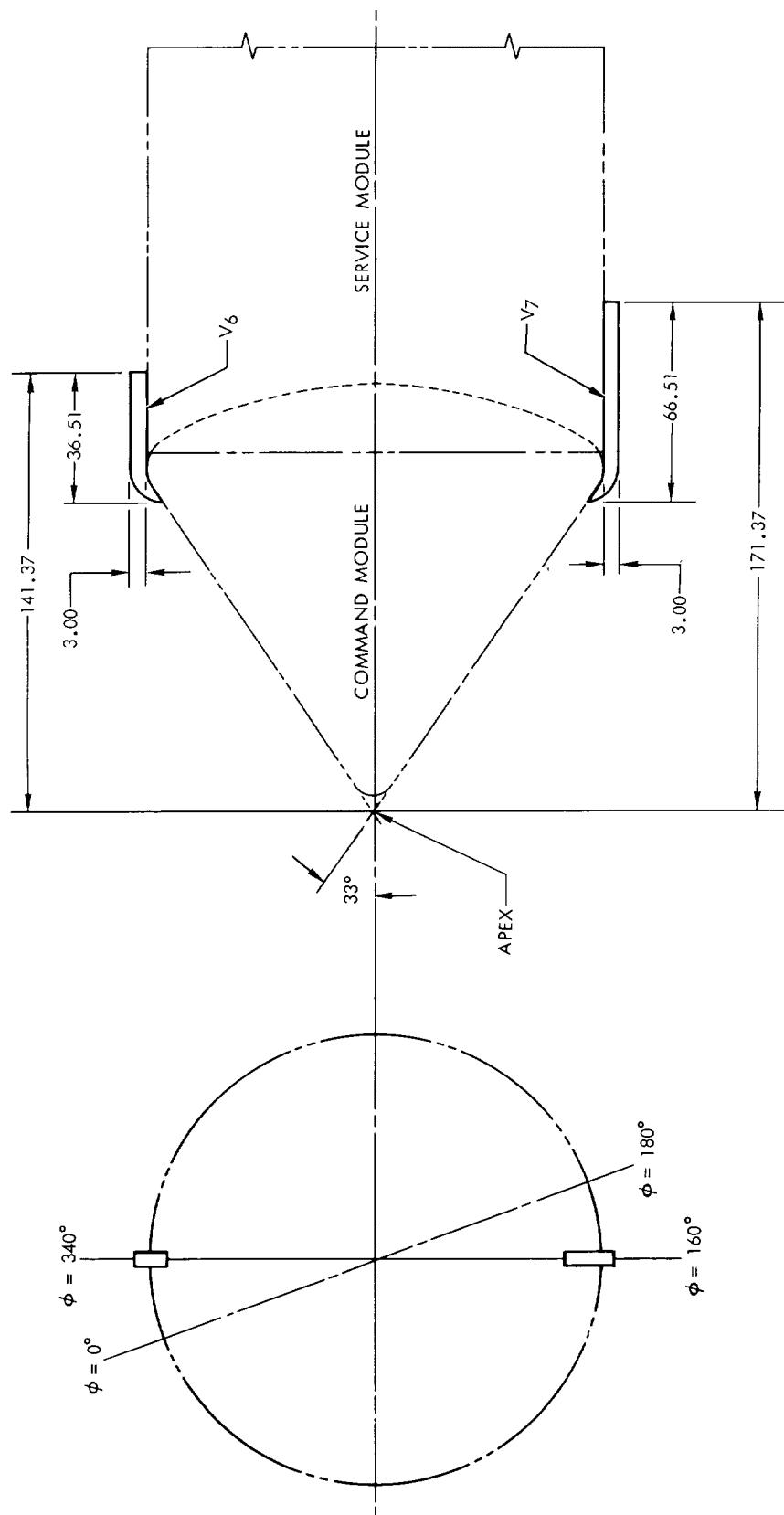


DRAWING NOT TO SCALE

VENT V5



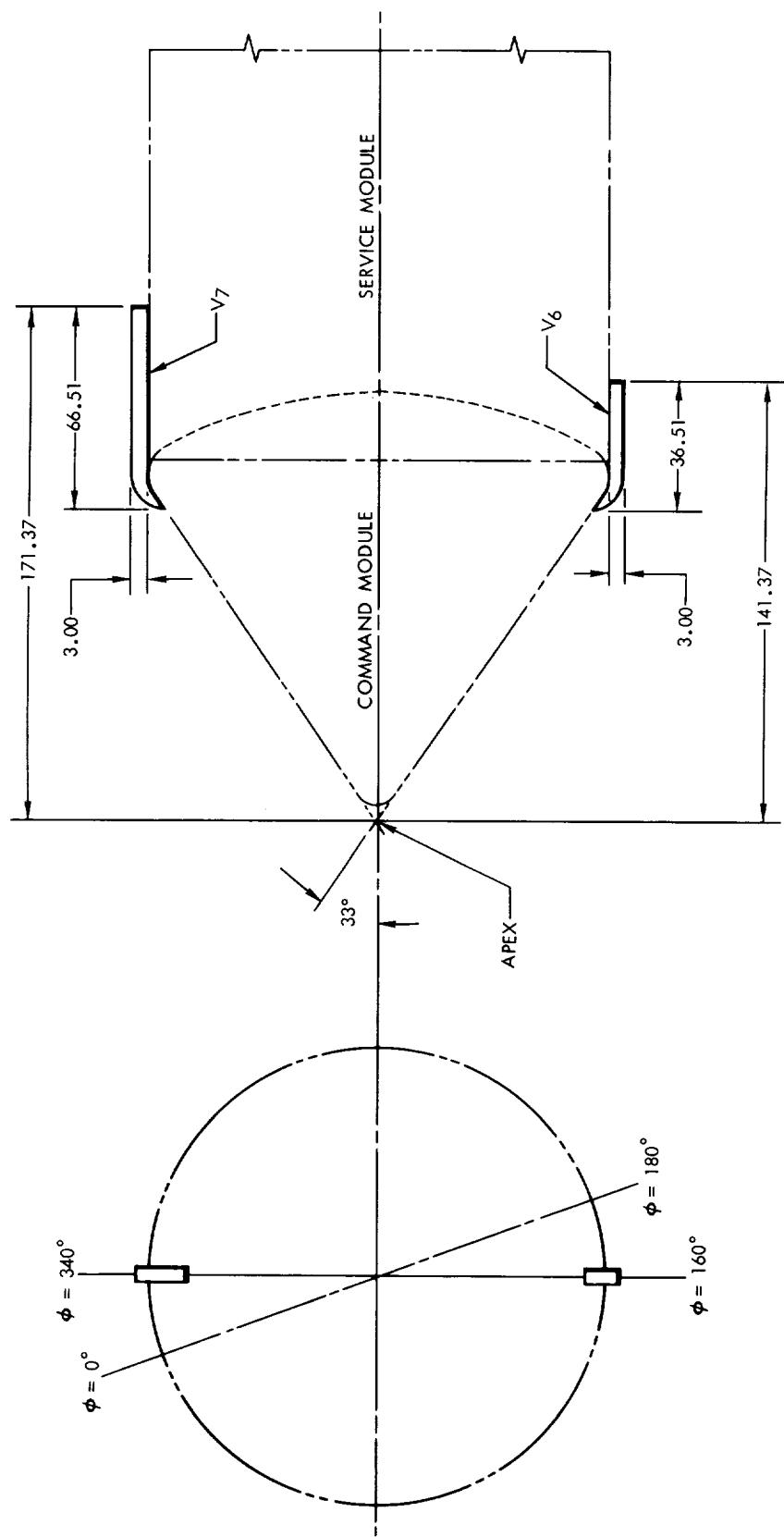
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSIONS IN INCHES

VENT [ $V_6 V_7$ ]

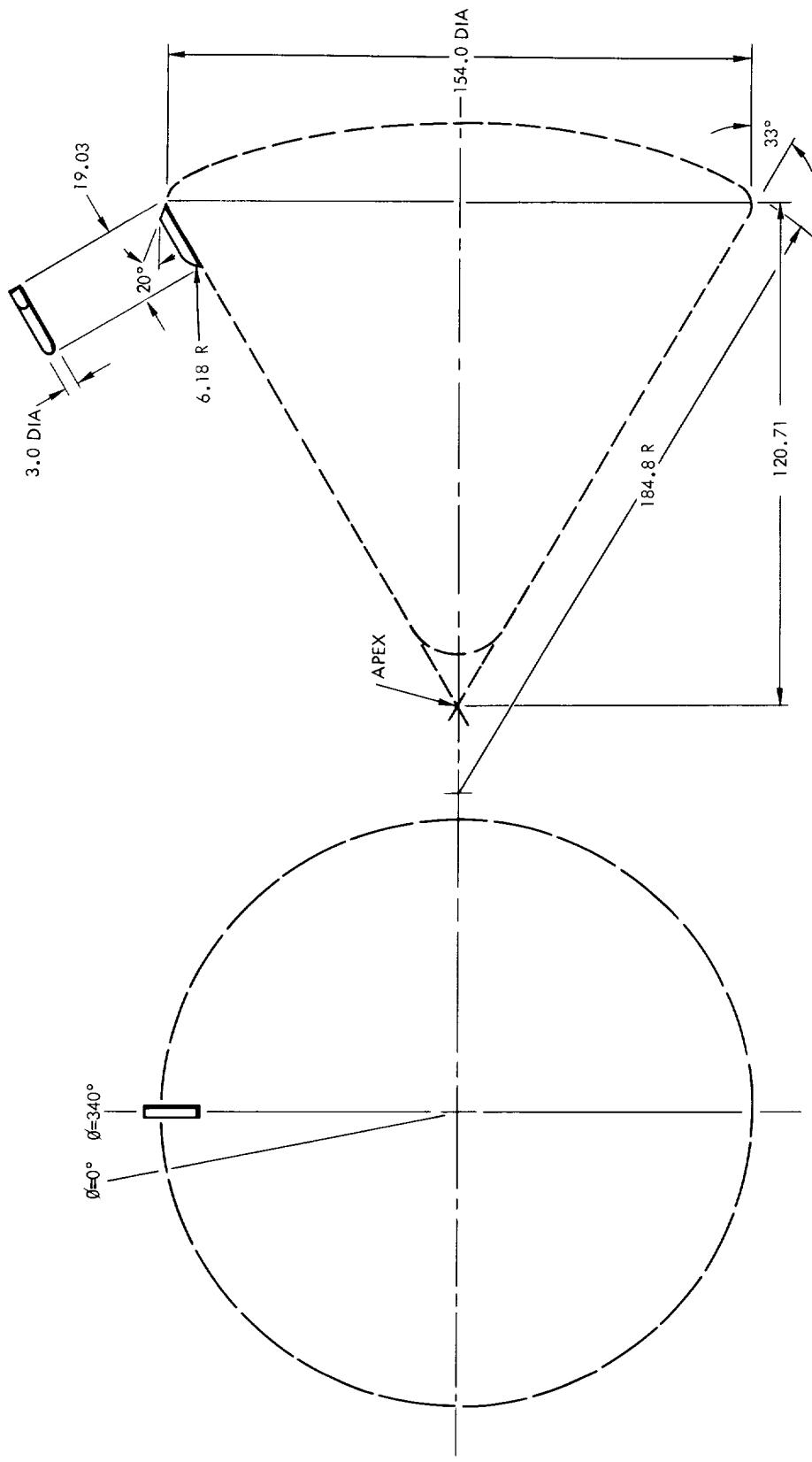
DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

VENT [ $V_7$   $V_6$ ]

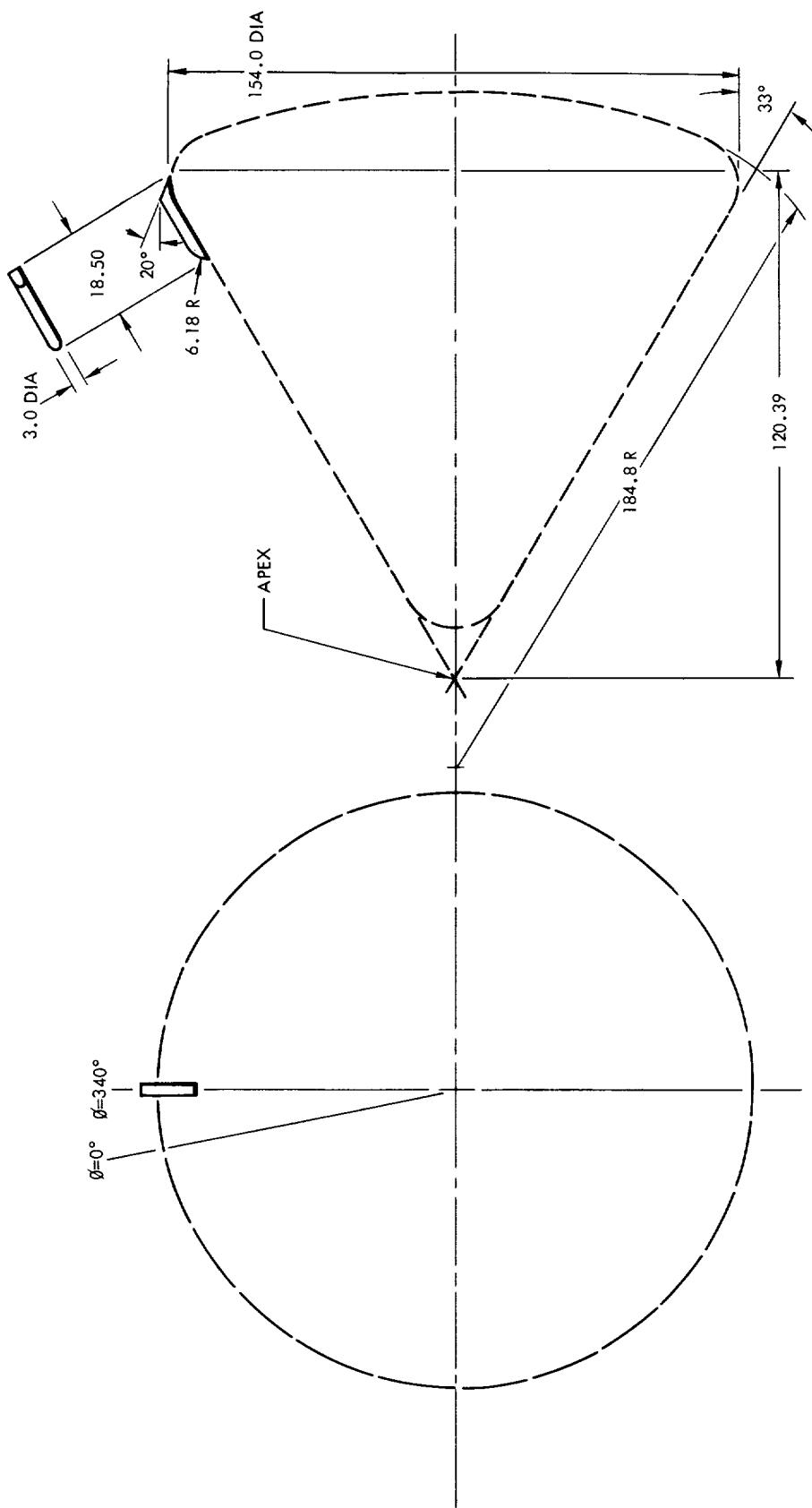
DRAWING NOT TO SCALE



FULL SCALE DIMENSIONS IN INCHES

VENT V8

DRAWING NOT TO SCALE



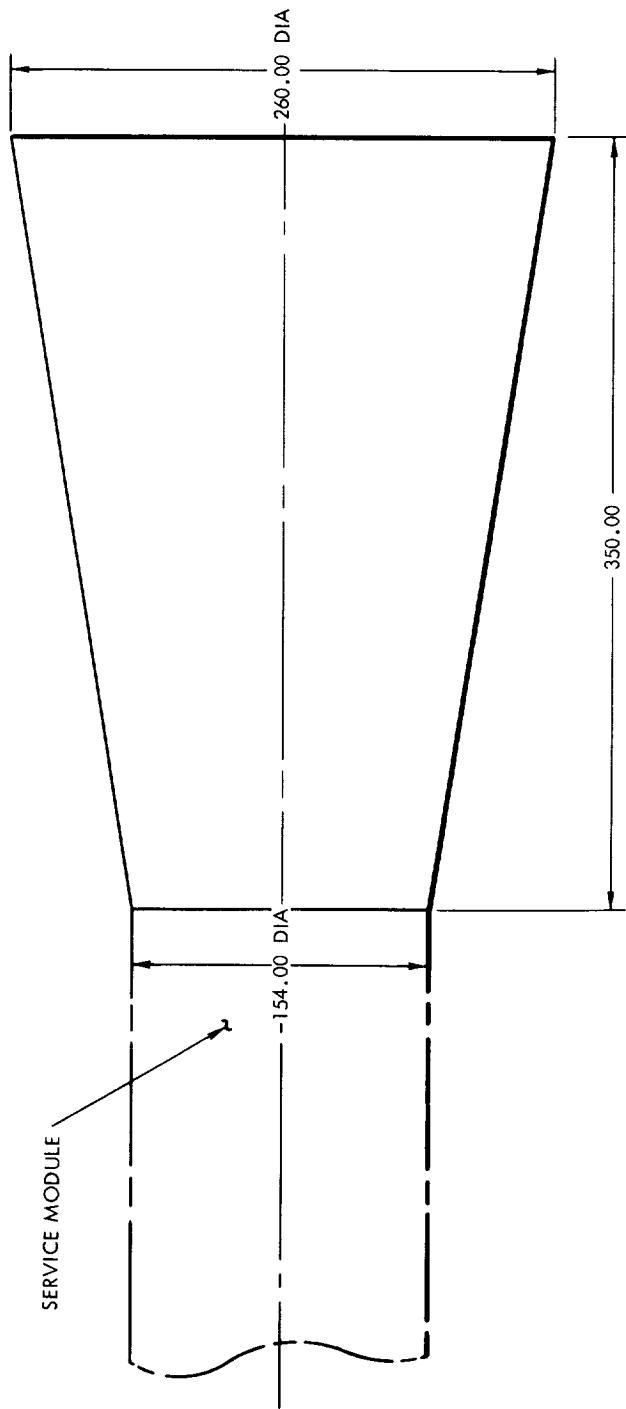
DRAWING NOT TO SCALE

VENT V9

FULL SCALE DIMENSIONS IN INCHES



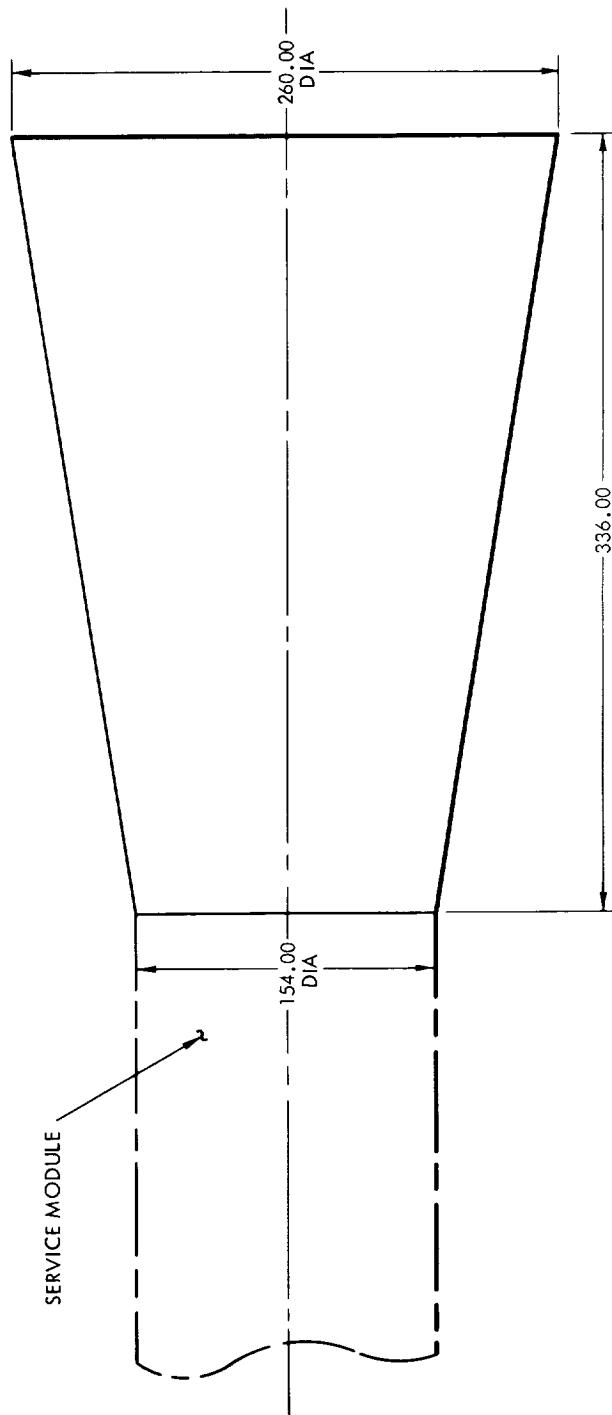
Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
D	LEM Adapter - The adapter is a frustum of a right circular cone. Length = 350.00 in., minimum diameter = 154.00 in., and maximum diameter = 260.00 in.	J.S. P.B.	PSTL- 2 and -3	7121-011191-2	Ames 37 (9by7) 37 (11by 11)
D2	The adapter is a frustum of a right circular cone. Length = 336.00 in., minimum diameter = 154.00 in., and maximum diameter = 260.00 in.	D.E.	HL-1C	7121-01274-2	(Same as D except for length.)



DRAWING NOT TO SCALE

LEM ADAPTER D

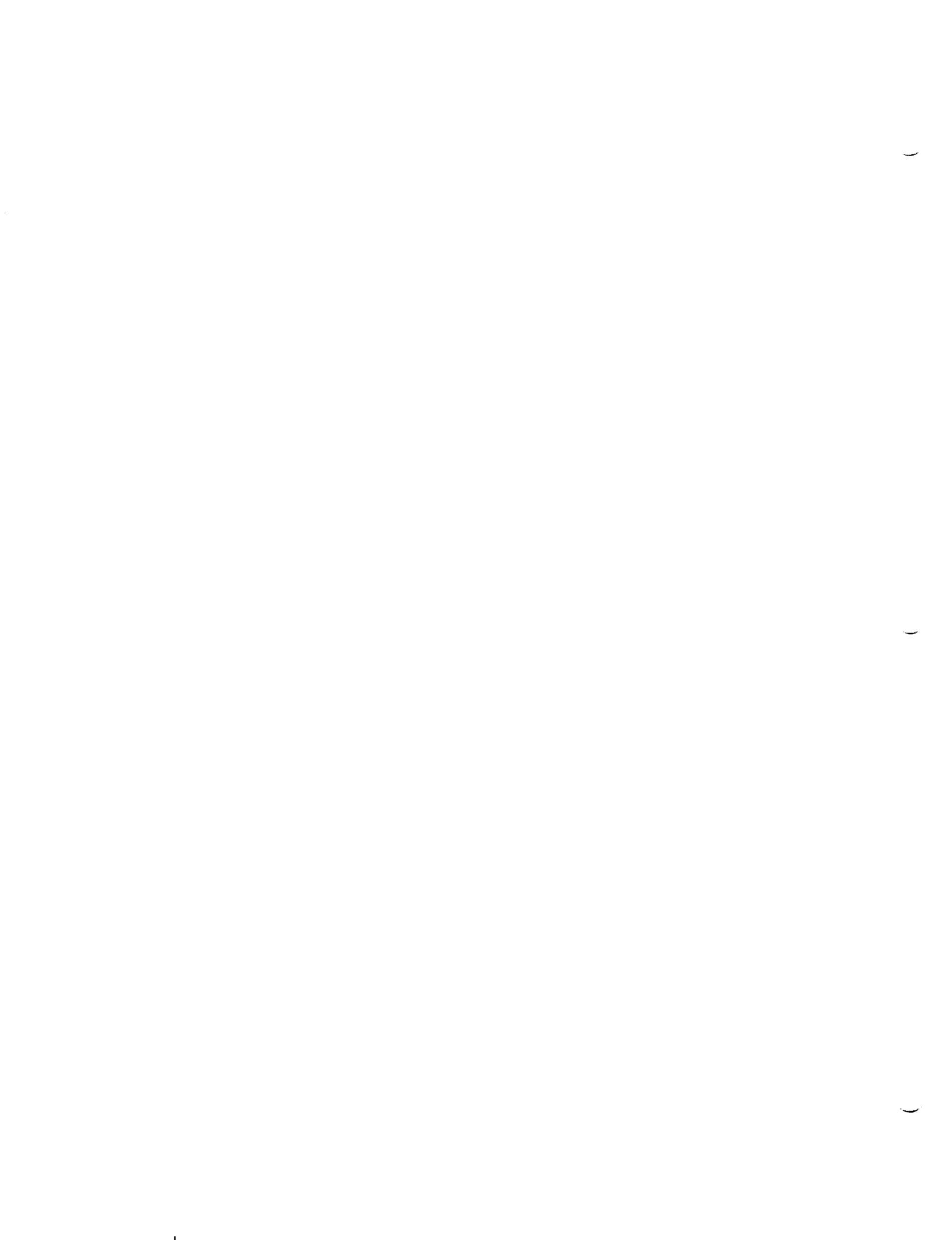
FULL-SCALE DIMENSIONS IN INCHES



FULL-SCALE DIMENSION IN INCHES

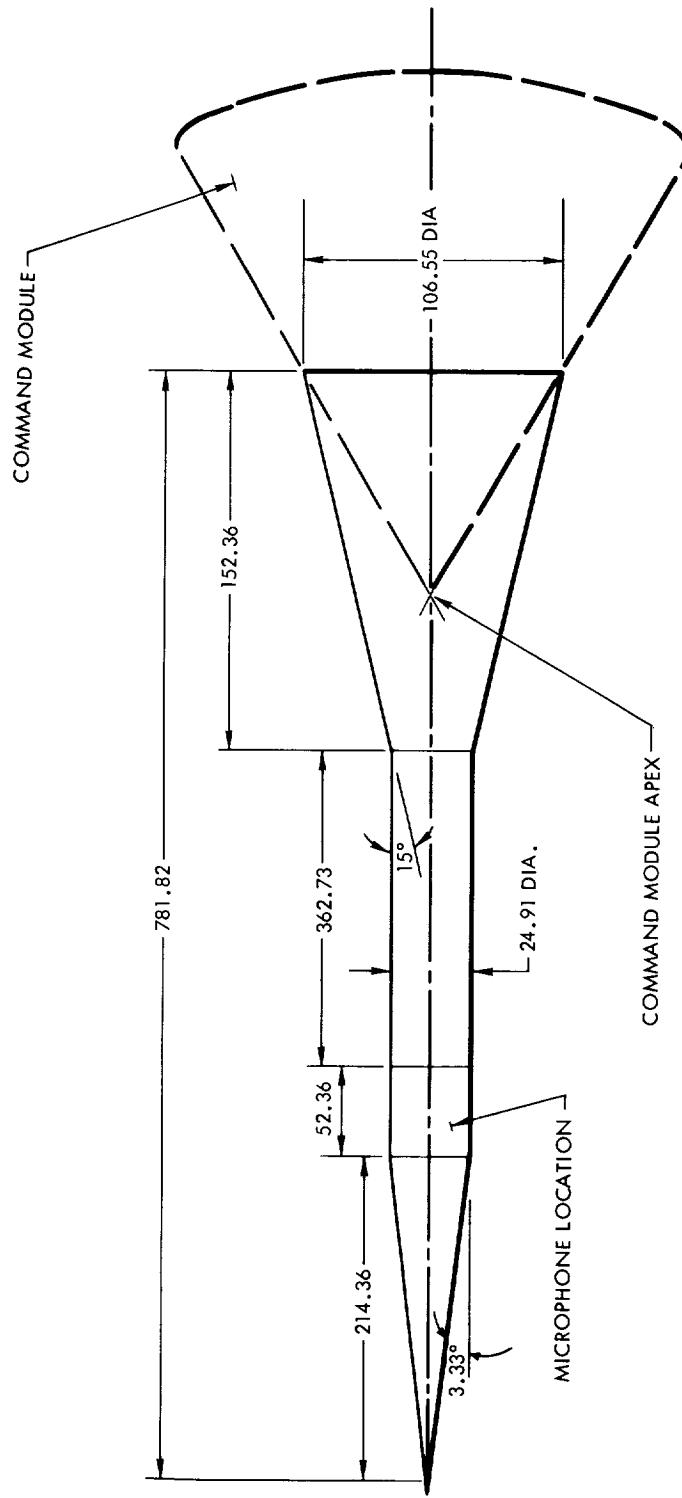
DRAWING NOT TO SCALE

LEM ADAPTER D2





Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No. Pretest and Data Reports
M	Microphone Probe - Total length of microphone probe assembly = 781.82 in. The assembly consists of three different geometric shapes assembled in the following order: a right circular cone (length = 214.36 in.; base diameter = 24.91 in.), a right circular cylinder (length = 415.09 in.; diameter = 24.91 in.), and a frustum of a right circular cone (length = 152.36 in.; minimum diameter = 24.91 in.; maximum diameter = 106.55 in.).	J.S. P.B.	PSTL- 2	7121-01179-3, -4, -5, and -6 7121-01191-7 37 (11 by 11)	Ames 37 (9by7) 37 (11 by 11) SID-63-1027



FULL-SCALE DIMENSIONS IN INCHES

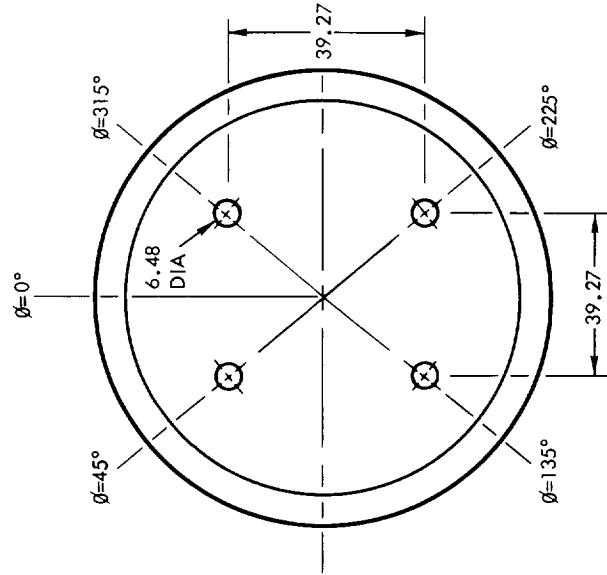
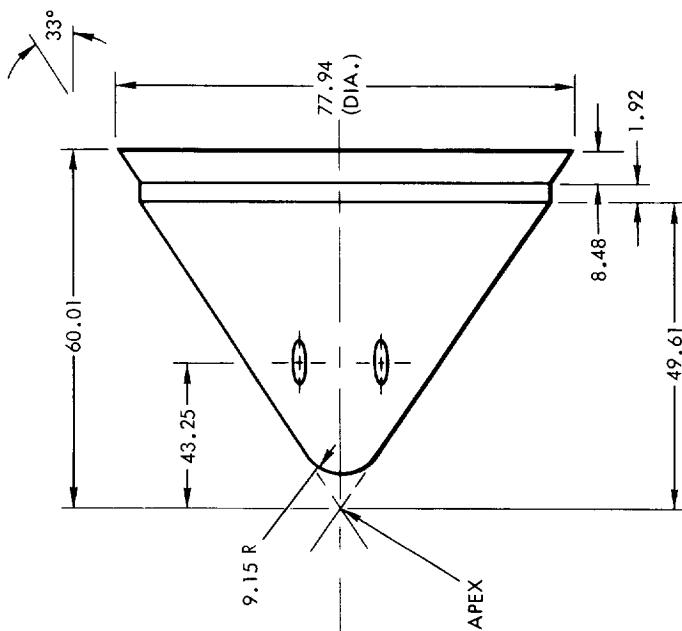
DRAWING NOT TO SCALE

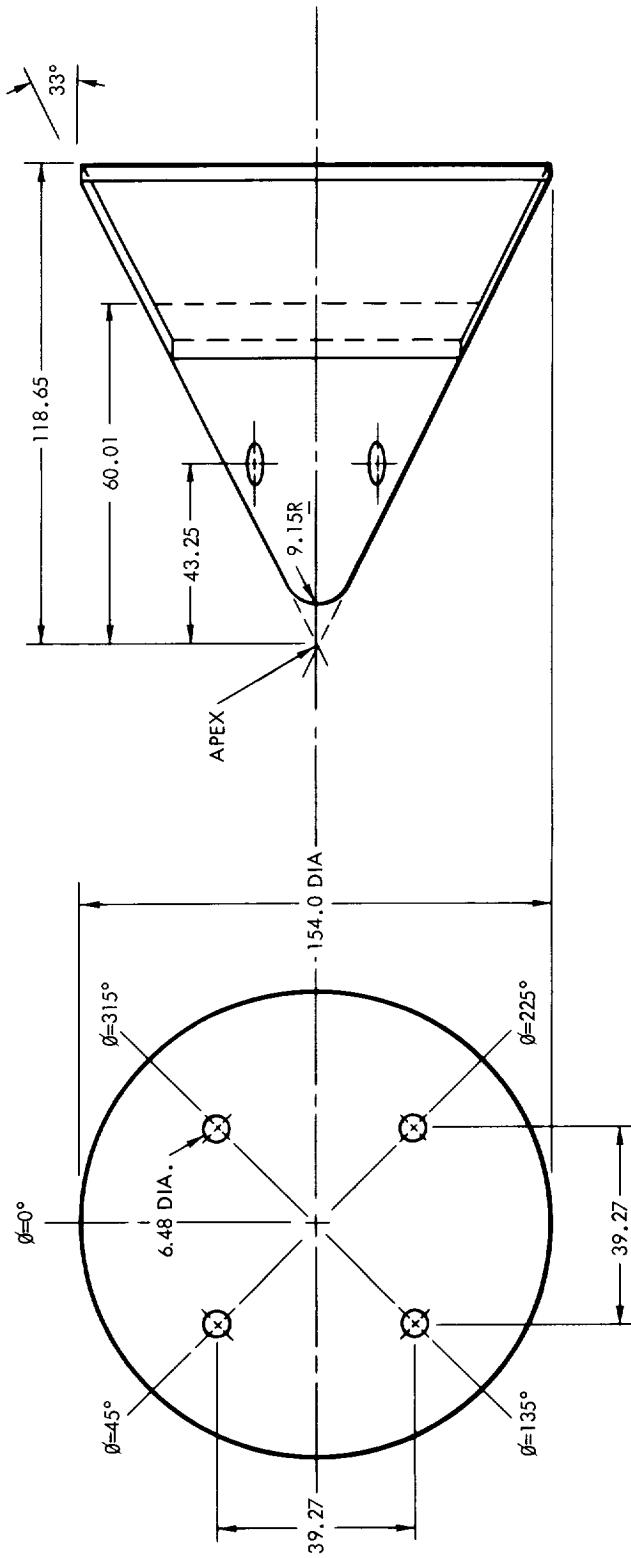
MICROPHONE PROBE M



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
U	Apex Cover - Maximum diameter = 77.94 in. Nose cone vertex radius = 9.15 in. Nose cone vertex semi-angle = 33 deg. Length of apex cover (measured parallel to cover centerline and from theoretical apex) = 60.01 in. Tower leg cavities are left open. (See sketch for dimensions)	B.C.	FS-10A	7121-01030	TWT-101	None SID IOL 696-710-140 -64-012
U <sub>2</sub>	Maximum diameter = 154.0 in. Nose cone vertex radius = 9.15 in. Nose cone vertex semiangle = 33 deg. Length of cover (measured parallel to cover centerline and from theoretical apex) = 118.65 in. Tower leg cavities are open. (See sketch for dimensions)	B.C.	FS-10A	7121-01030	TWT-101	None SID IOL 696-710-140 -64-012
U <sub>3</sub>	Maximum diameter = 78.25 in. Nose cone vertex radius = 9.15 in. Nose cone vertex semiangle = 33 deg. Length (measured parallel to cover centerline and from theoretical apex) = 60.25 in. Tower leg cavities are located radially at $\theta = 47.25, 132.75, 227.25,$ and $312.75$ deg and 53.13 in. aft of theoretical apex. (See sketch for dimensions)	J.S. P.B.	FS-10	7121-01277-3, -4, and -5	TWT-103	

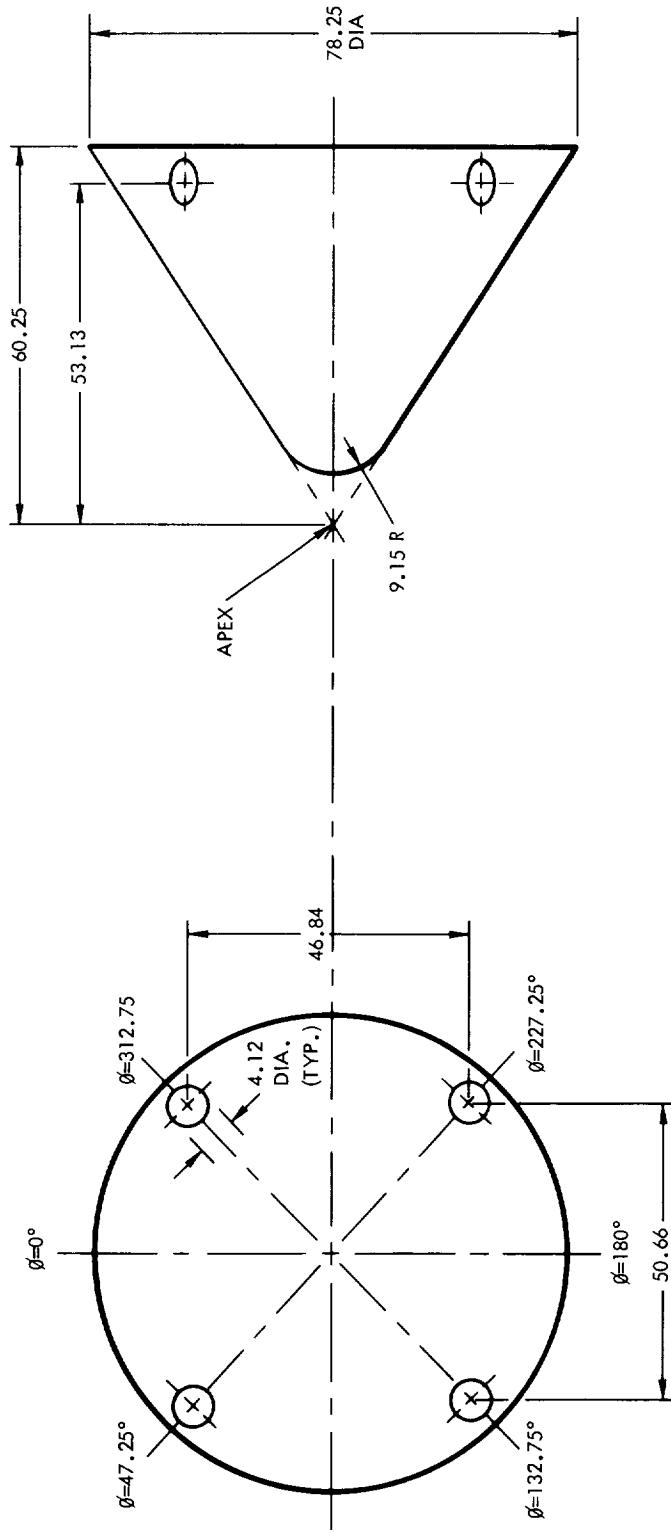




FULL-SCALE DIMENSIONS IN INCHES

APEX COVER U<sub>2</sub>

DRAWING NOT TO SCALE



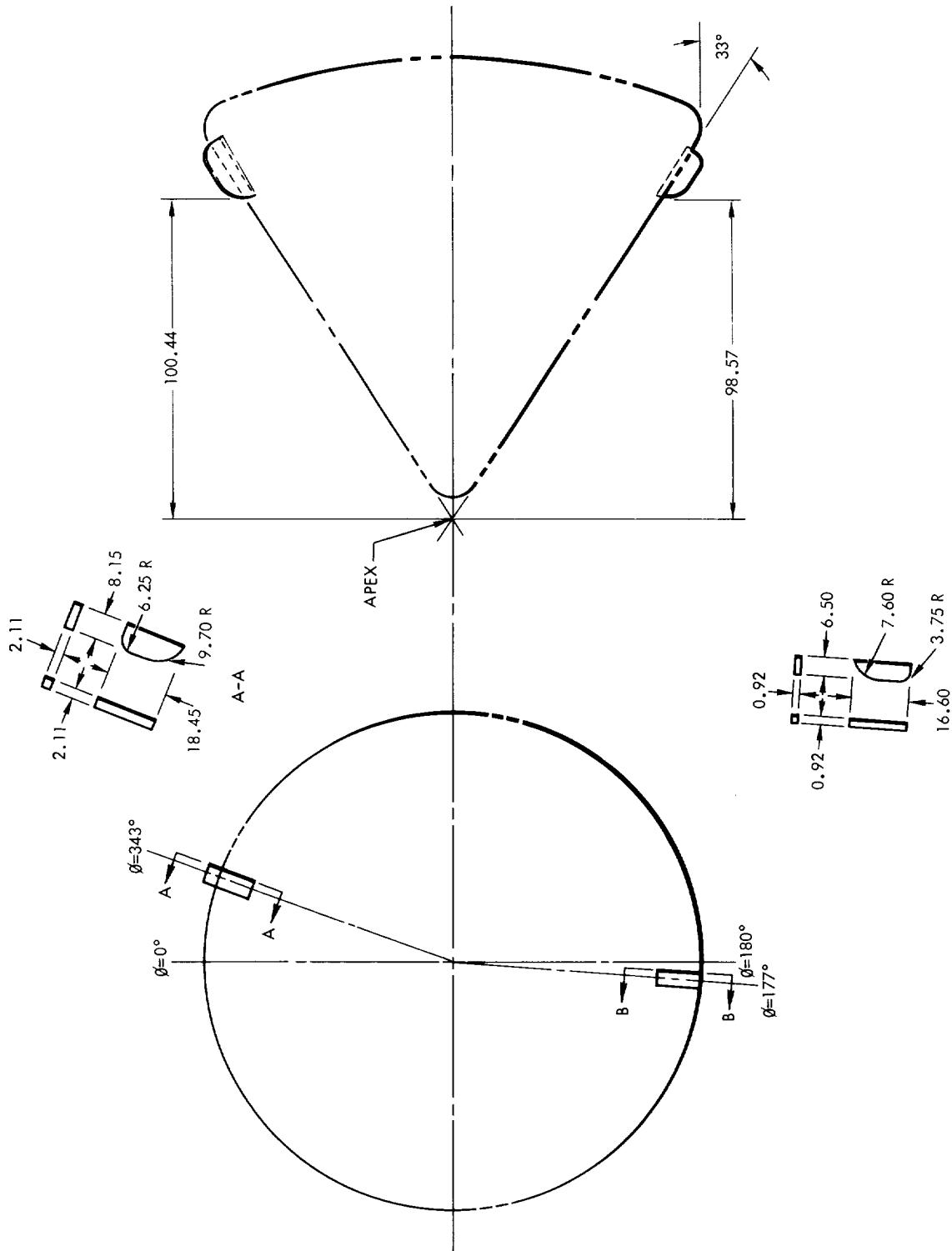
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

APEX COVER U3



Apollo Wind Tunnel Model Nomenclature					
Symbol	Description	Test Engr	Model	Drawing No.	Test No.
a	Two Antenna Housings - Each antenna housing is located as follows: 98.57 in. aft of command module apex, radial location, $\phi = 177$ deg; and 100.44 in. aft of command module apex, radial location, $\phi = 340$ deg. (See sketch for additional dimensions)	J. S.	FS-10	7121-01277 -15 and -16	TWT-103



FULL-SCALE DIMENSIONS IN INCHES

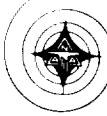
ANTENNA HOUSING a

DRAWING NOT TO SCALE



Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
$t_r$	Boundary layer tripper - Five segments of a disc 5.20 in. thick, located 13.00 in. aft of apex of escape rocket nose (nose radius = 5.20 in., nose included angle = 60 deg), perpendicular to escape rocket centerline. Gap between segments = 5.20 in. Height of tripper (at forward end of tripper and measured perpendicular to nose centerline) from surface of nose = 4.00 in.	M. C.	FS-1	None	JPL 21-98	None SID 62-423
$t_{r2}$	Same as $t_r$ except height of tripper = 5.00 in.	M. C.	FS-1	None	JPL 21-98	None SID 62-423
$t_{r3}$	Same as $t_r$ except height of tripper = 6.00 in.	M. C.	FS-1	None	JPL 21-98	None SID 62-423

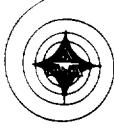


Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
$t_{r_4}$	Grit on escape rocket nose; mean diameter of grit = 0.380 in. Grit is located 13.00 in. aft of nose apex and extends to escape rocket body mold line; diameter of mold line = 26.0 in. Nose radius = 5.20 in.; nose included angle = 60 deg.	M. C.	FS-1	None	JPL 20-495	None SID 62-547
$t_{r_5}$	Same as $t_{r_4}$ except mean diameter = 0.755 in.	M. C.	FS-1	None	JPL 20-495	None SID 62-547
$t_{r_6}$	Same as $t_{r_4}$ except mean diameter = 1.51 in.	M. C.	FS-1	None	JPL 20-495	None SID 62-547
$t_{r_7}$	Two grit bands on command module C2; width of bands = 5.556 in. There are four rows of spheres of 0.694-in. diameter. The first band is located on the heat shield. Top of band starts 61.556 in. from module centerline (measuring along the heat shield).	W. B.	H-2	None	AEDC Tunnel B 304244-400	None SID 62-993



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
$t_{r7}$ (Cont)	Front view shows the band having an inner radius = 33.333 in. and an outer radius = 38.889 in. The second band is perpendicular to module centerline. Forward edge of band is located 47.911 in. aft of reentry face. Bottom of band is located 23.556 in. above module centerline.					
$t_{r8}$	Same as $t_{r7}$ except there are three rows of spheres of 1.042 in. diameter; the inner and outer radii of the first band = 44.44 in. and 50.00 in. respectively.	W. B.	H-2	None	AEDC Tunnel B 304244- 400	None SID 62-993
$t_{r9}$	Same as $t_{r7}$ except the inner and outer radii of the first band = 44.44 in. and 50.00 in. respectively.	W. B. D. E	H-2	None	AEDC Tunnel C 304244- 500	None SID 62-993



Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
$t_{r10}$	Grit on command module C; mean diameter of grit = 2.50 in.; width of grit band = 25.00 in., center of grit band = 75.50 in. away from stagnation point (measuring along the surface of the command module) when command module is at an angle of attack of 147 deg.	E. F.	H-1	7121-01251	JPL 21-102	SID 62-354 SID 62-628
$t_{r11}$	Grit on escape rockets E35 and E40 and on the large fins of booster B3. Mean diameter of grit = 0.45 in. Width of grit bands = 5.00 in. Forward edge of grit band on the escape rockets is located at the junction of the nose and main body. Forward edge of grit band on the large fins is 5.00 in. aft of the leading edge. Band on large fin extends from tip to exposed root chord on both sides.	J. W.	FSL-1	None	Ames 87(11 by 11) 105(9 by 7)	None SID 62-1143
$t_{r12}$	Same as $t_{r11}$ except grit mean diameter = 0.70 in.	J. W.	FSL-1	None	Ames 110(8 by 7)	None SID 62-1143

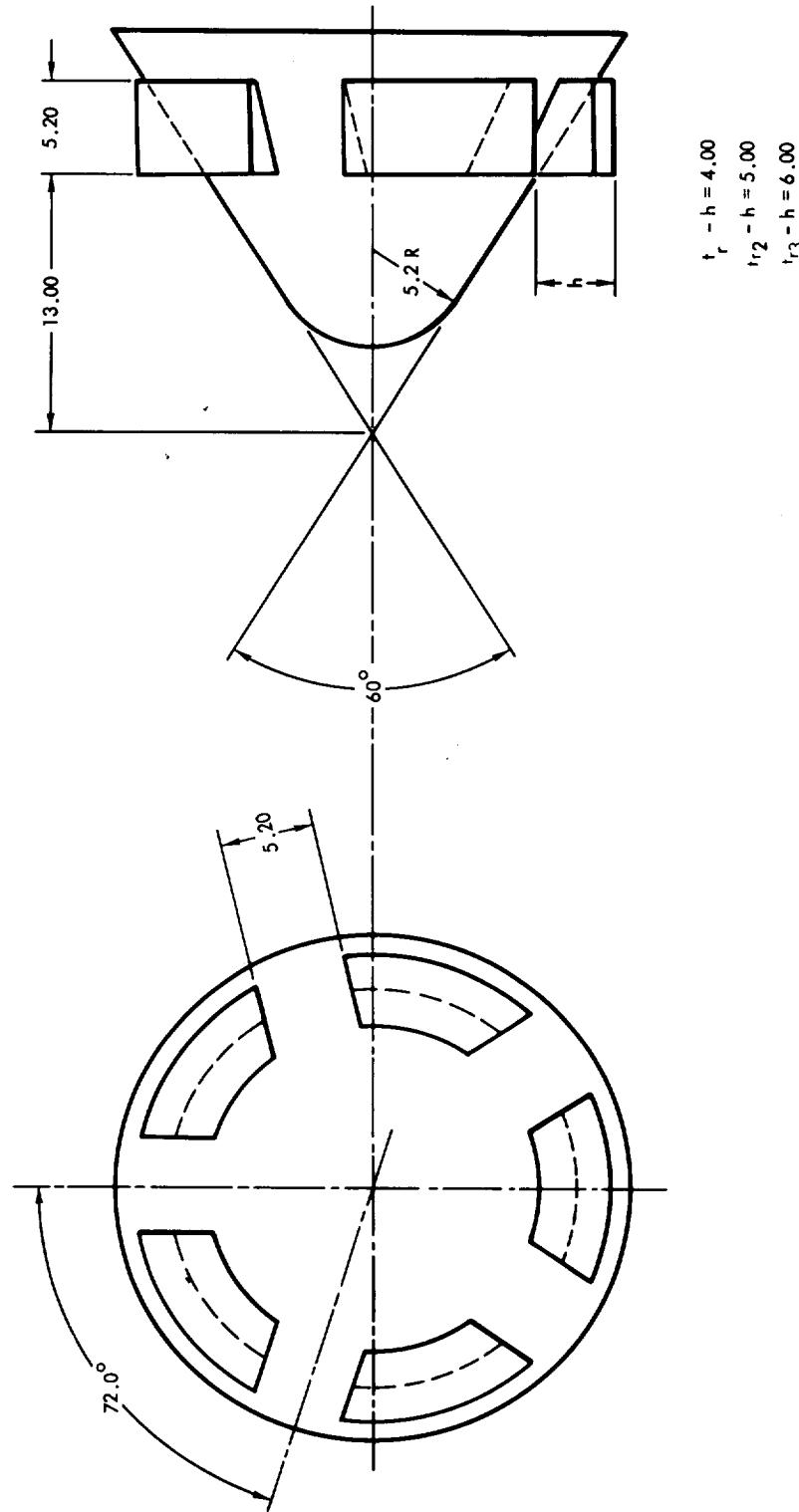


## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
tr13	Same as tr9 except grit is not lined up in rows, and diameter of grit varies between 0.867 in. and 1.0 in.	G. U. W. B.	H-2	None	LUPWT- REY 451	SID 62-1011 SID 63-683
tr14	Two grit bands on command module C2. Width of bands = 5.56 in. The first band is located on the heat shield. Top of band starts 61.56 in. above module centerline (measuring along the heat shield). Heat shield view shows the band having an inner radius = 44.44 in. and an outer radius = 50.0 in. This band consists of four rows of staggered spheres. Diameter of the spheres = 0.69 in. Distance between each row = 1.85 in. Distance between the spheres in each row = 1.39 in. The second band is perpendicular to module centerline. Forward edge of band is located 47.91 in. aft of reentry face. Bottom of band is located 23.56 in. above module centerline. This band consists of three rows of staggered spheres. Diameter of spheres = 1.04 in. Distance between each row = 2.78 in. Distance between the spheres in each row = 2.08 in.	W. B. D. E.	H-2	None	AEDC Tunnel C 304244- 500	SID 62-1214 SID 63-688

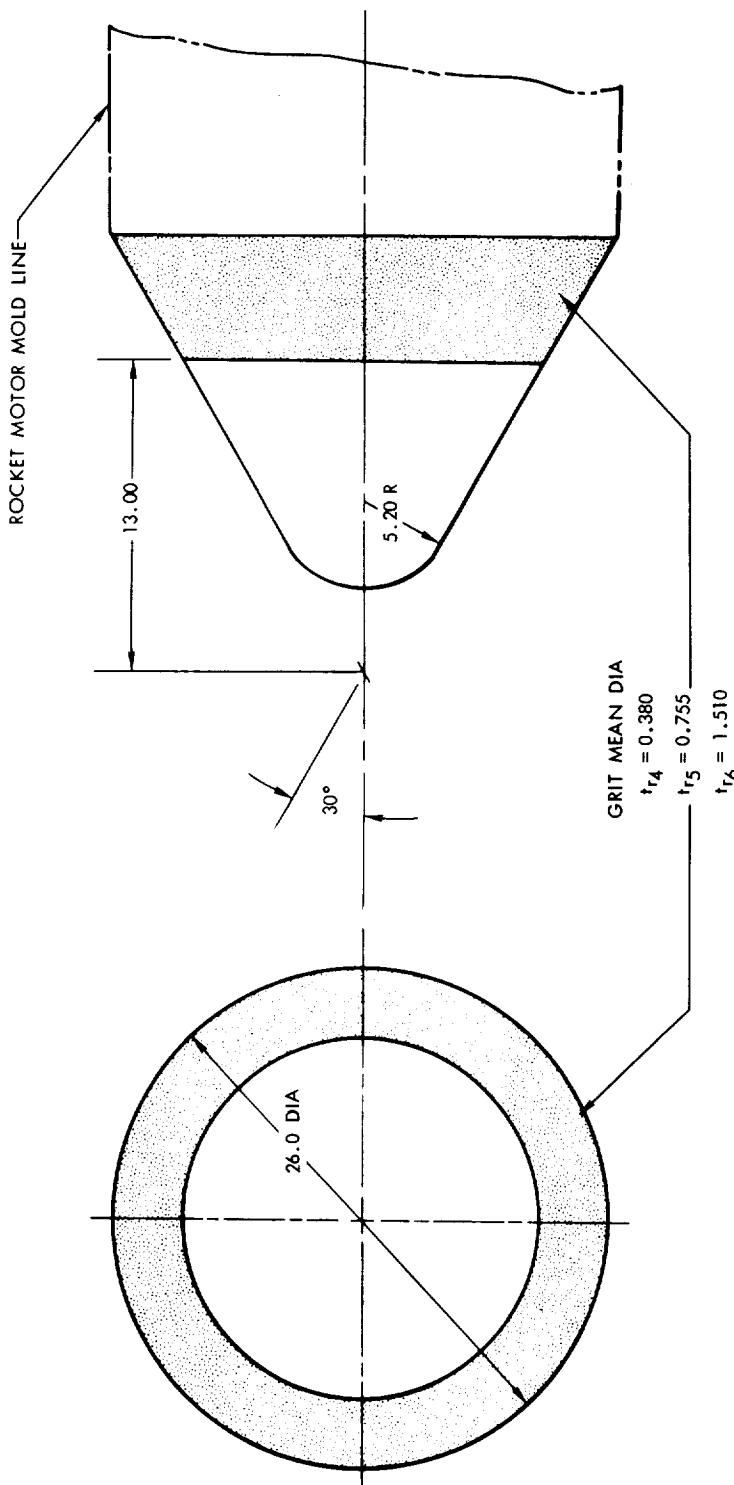


Apollo Wind Tunnel Model Nomenclature						
Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
$t_{r15}$	Consists of 0.0694 in. diameter spherical balls which cover 10.0 percent of the heat shield of command module C <sub>2</sub> with the exception of a 33.33 in. diameter space on the center. The heat shield is located 120.85 in. aft of the module apex.	G. U.	H-2	None	AEDC Tunnel C VT-1244- C00	None SID 63-1135

BOUNDARY LAYER TRIPPERS -  $t_{r_1}$ ,  $t_{r_2}$ , AND  $t_{r_3}$ 

FULL-SCALE DIMENSIONS IN INCHES

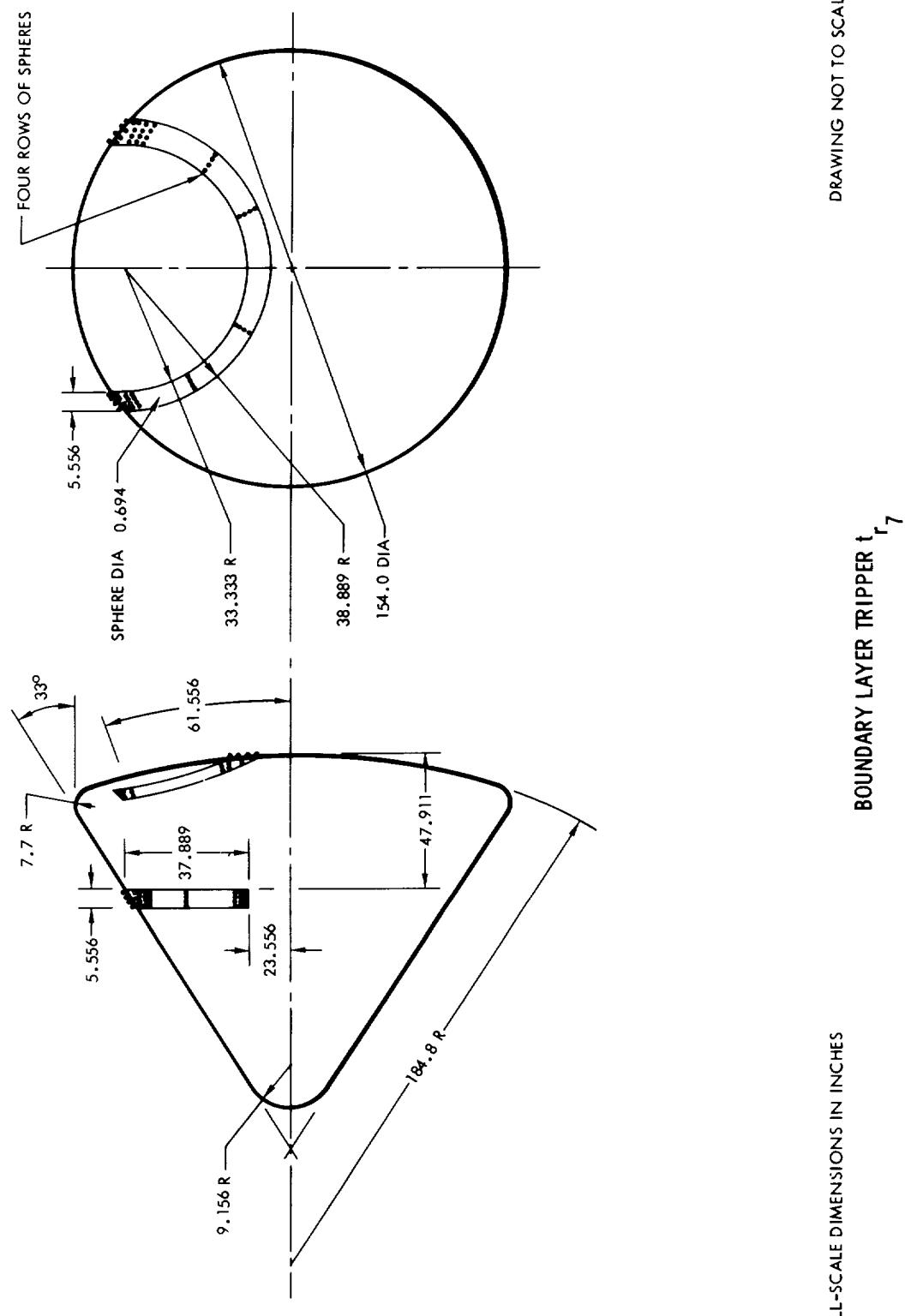
DRAWING NOT TO SCALE

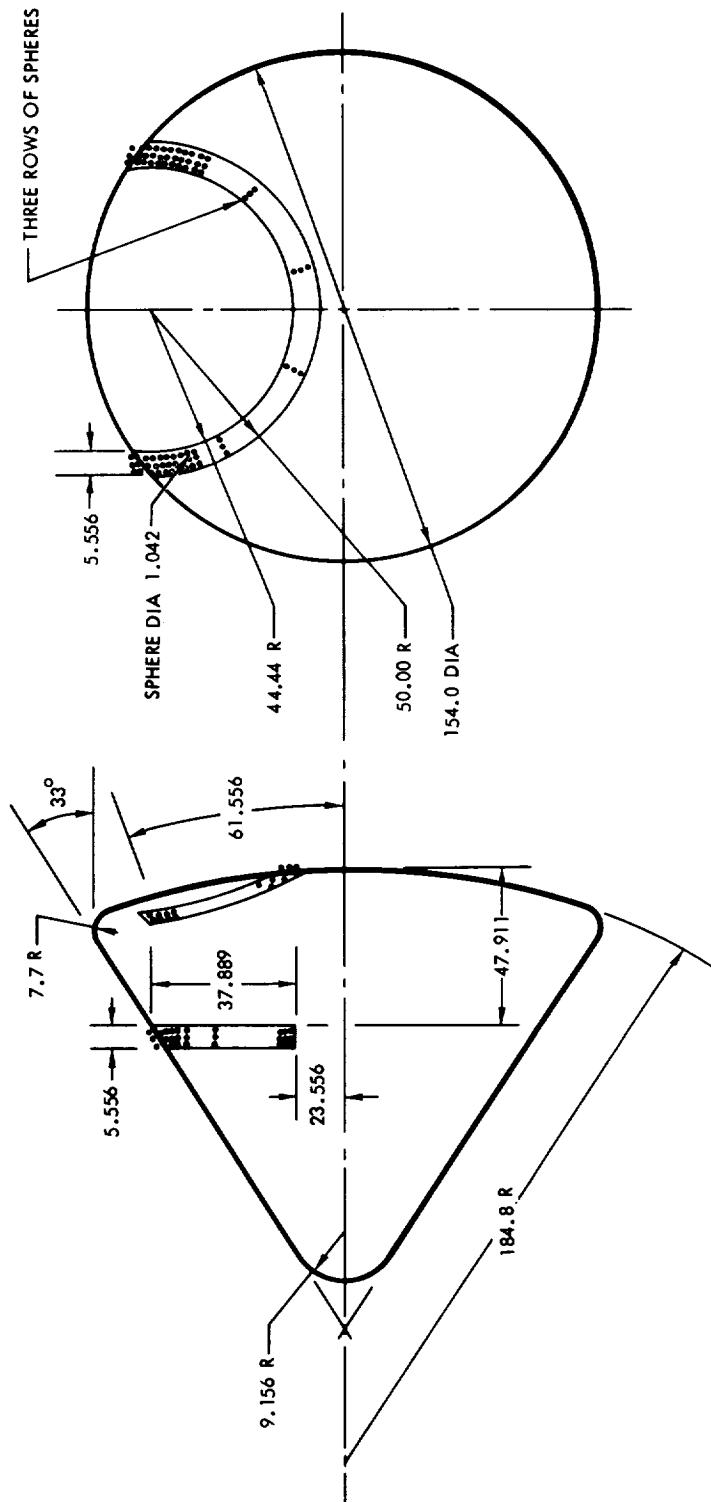


DRAWING NOT TO SCALE

BOUNDARY LAYER TRIPPERS  $t_{r4}$ ,  $t_{r5}$ , AND  $t_{r6}$ 

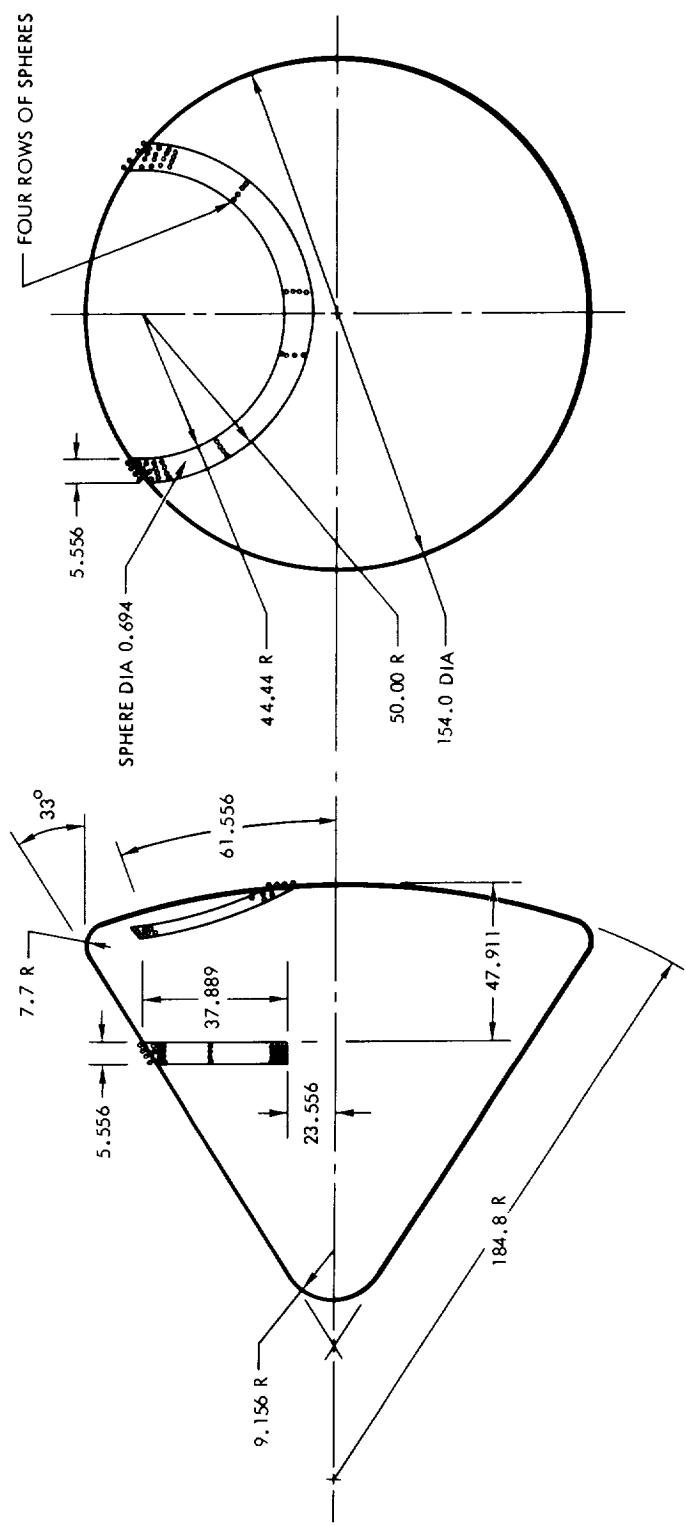
FULL-SCALE DIMENSIONS IN INCHES



BOUNDARY LAYER TRIPPER  $t_{r_8}$ 

FULL-SCALE DIMENSIONS IN INCHES

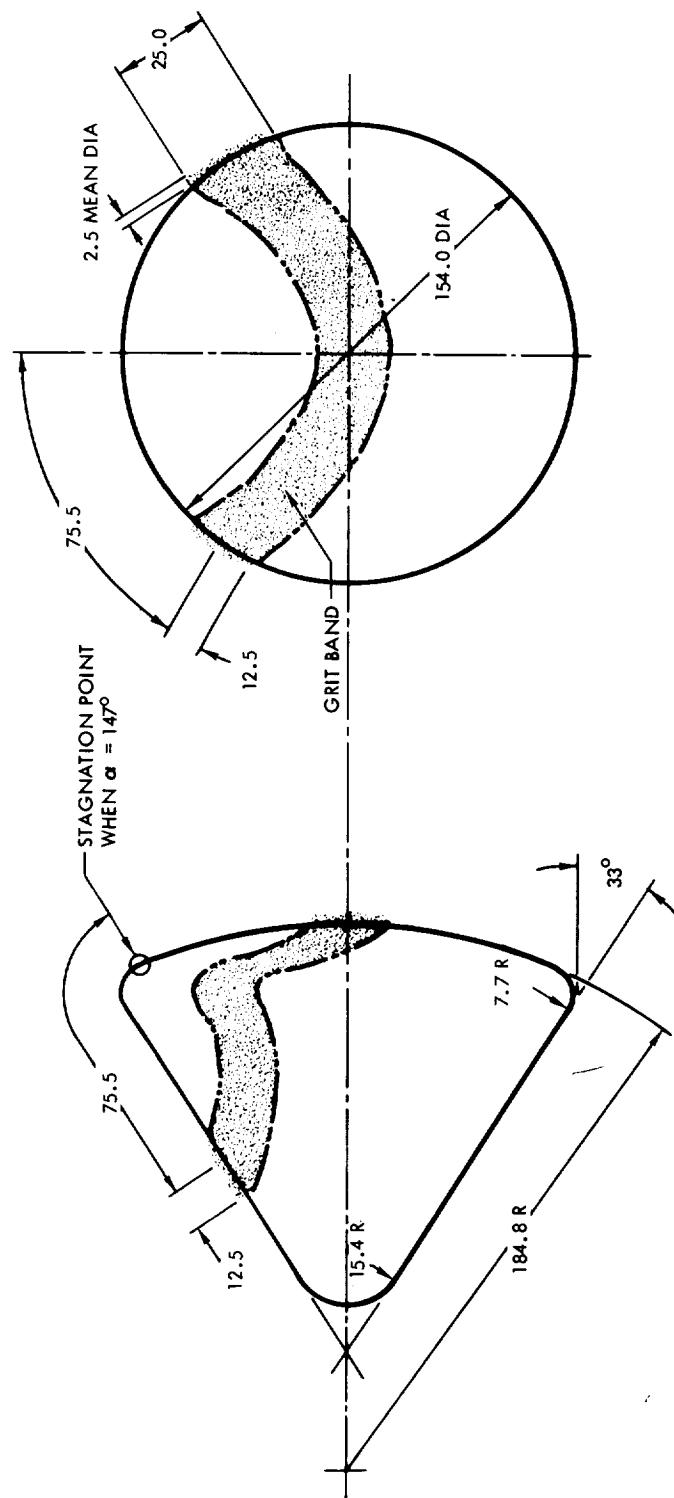
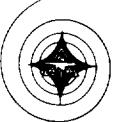
DRAWING NOT TO SCALE



DRAWING NOT TO SCALE

BOUNDARY LAYER TRIPPER  $t_9$ 

FULL-SCALE DIMENSIONS IN INCHES

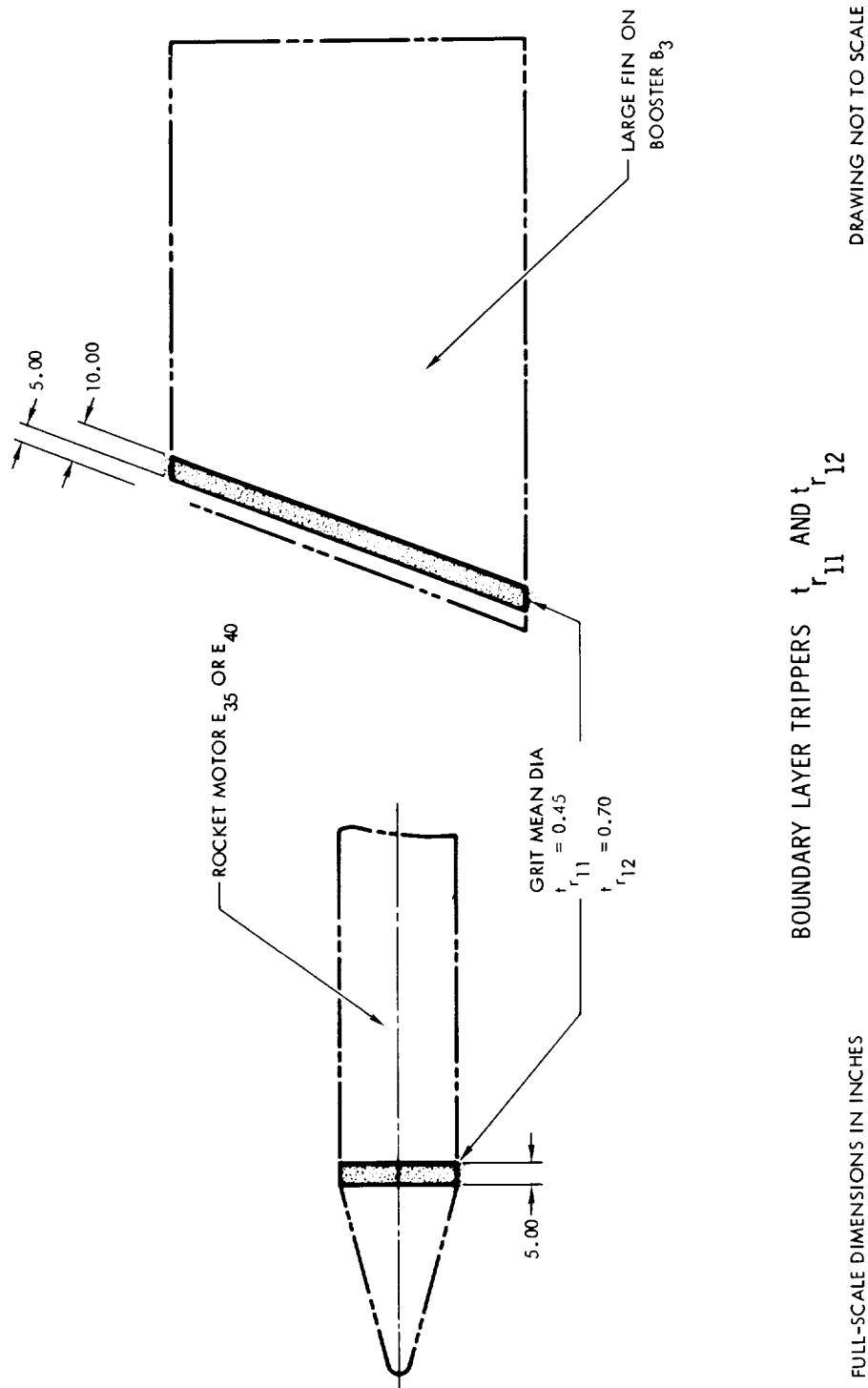


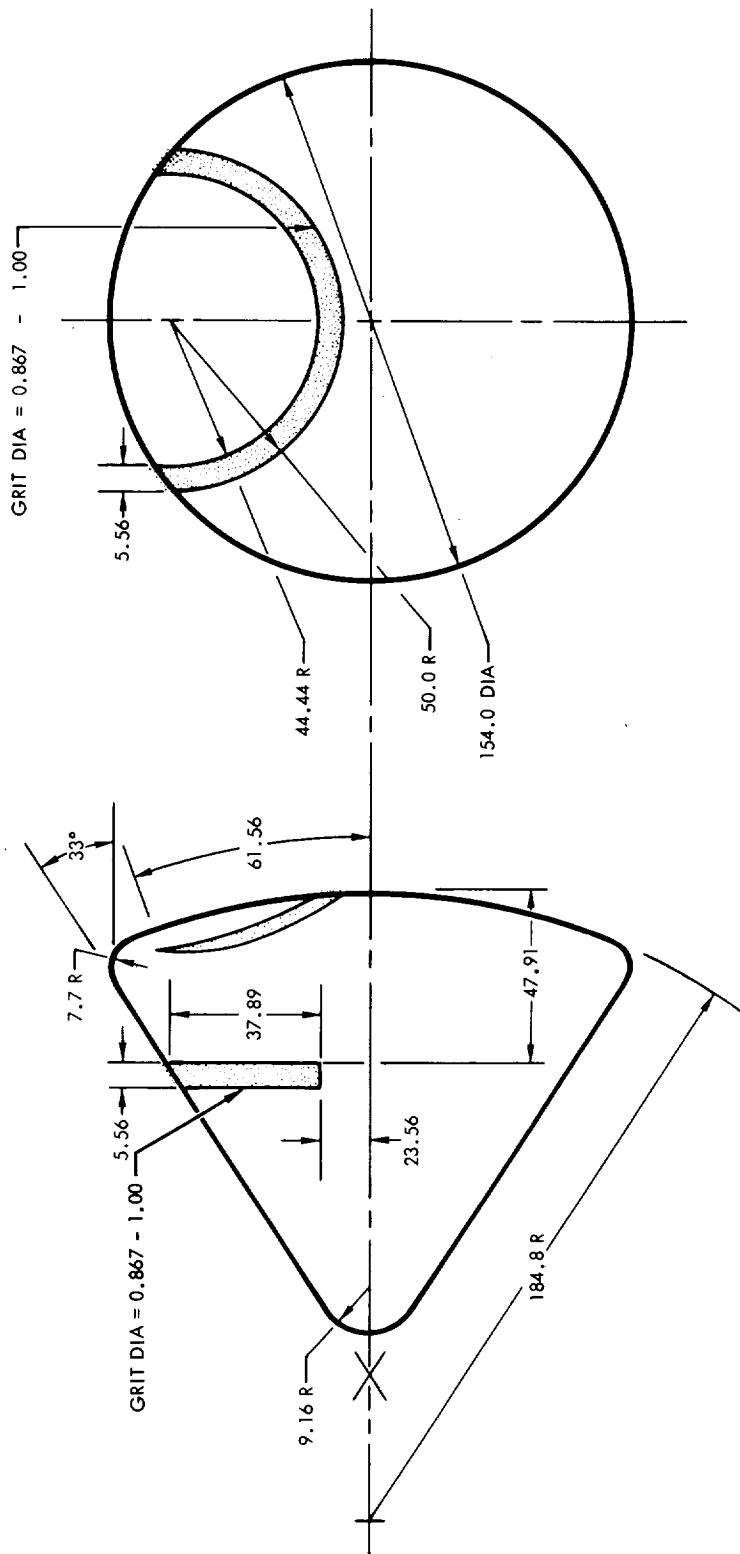
FULL-SCALE DIMENSIONS IN INCHES

 $t_r_{10}$ 

DRAWING NOT TO SCALE

BOUNDARY LAYER TRIPPER

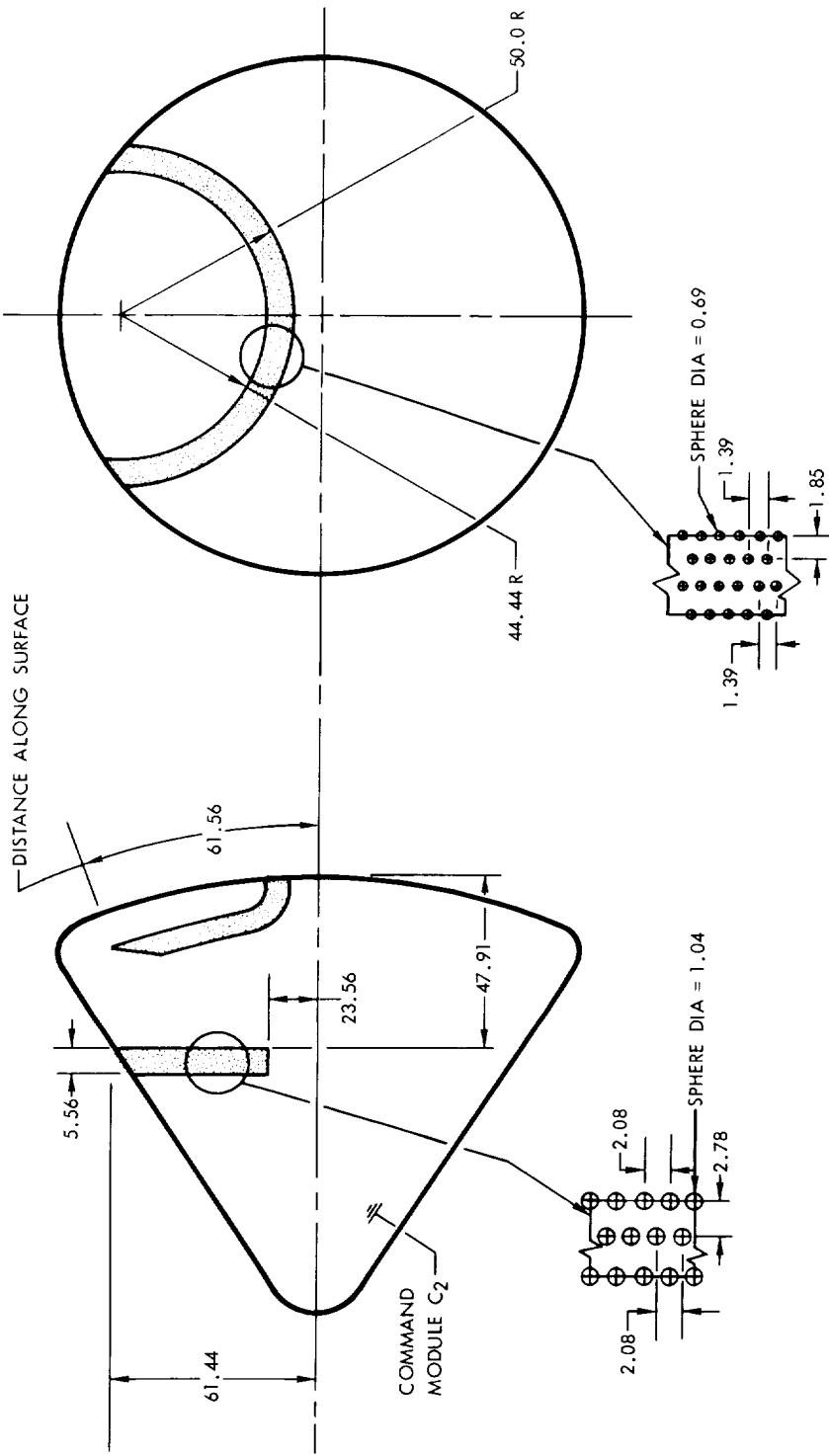




BOUNDARY LAYER TRIPPER tr13

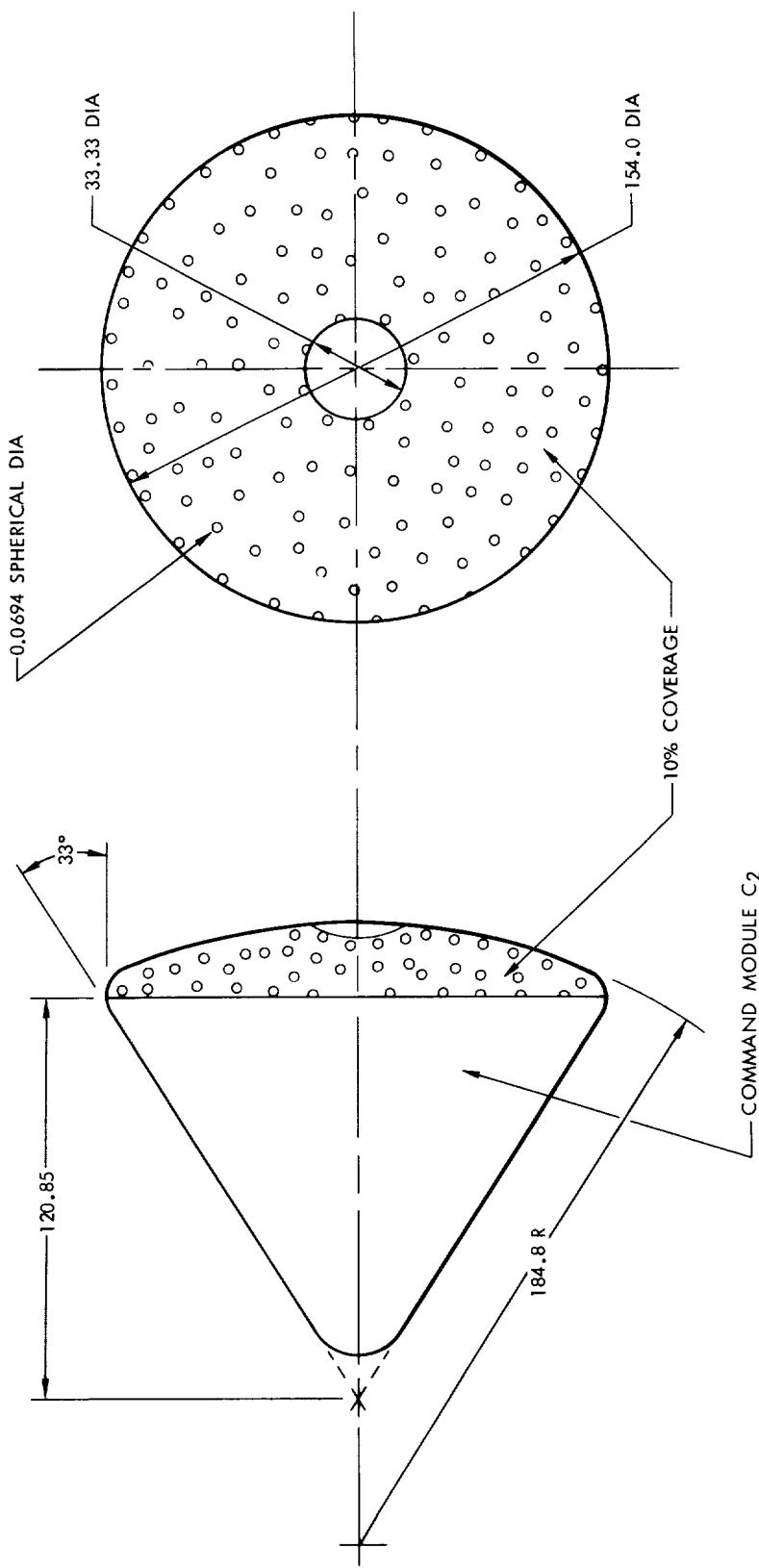
FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE

BOUNDARY LAYER TRIPPER t<sub>r14</sub>

FULL-SCALE DIMENSIONS IN INCHES

DRAWING NOT TO SCALE



FULL-SCALE DIMENSIONS IN INCHES

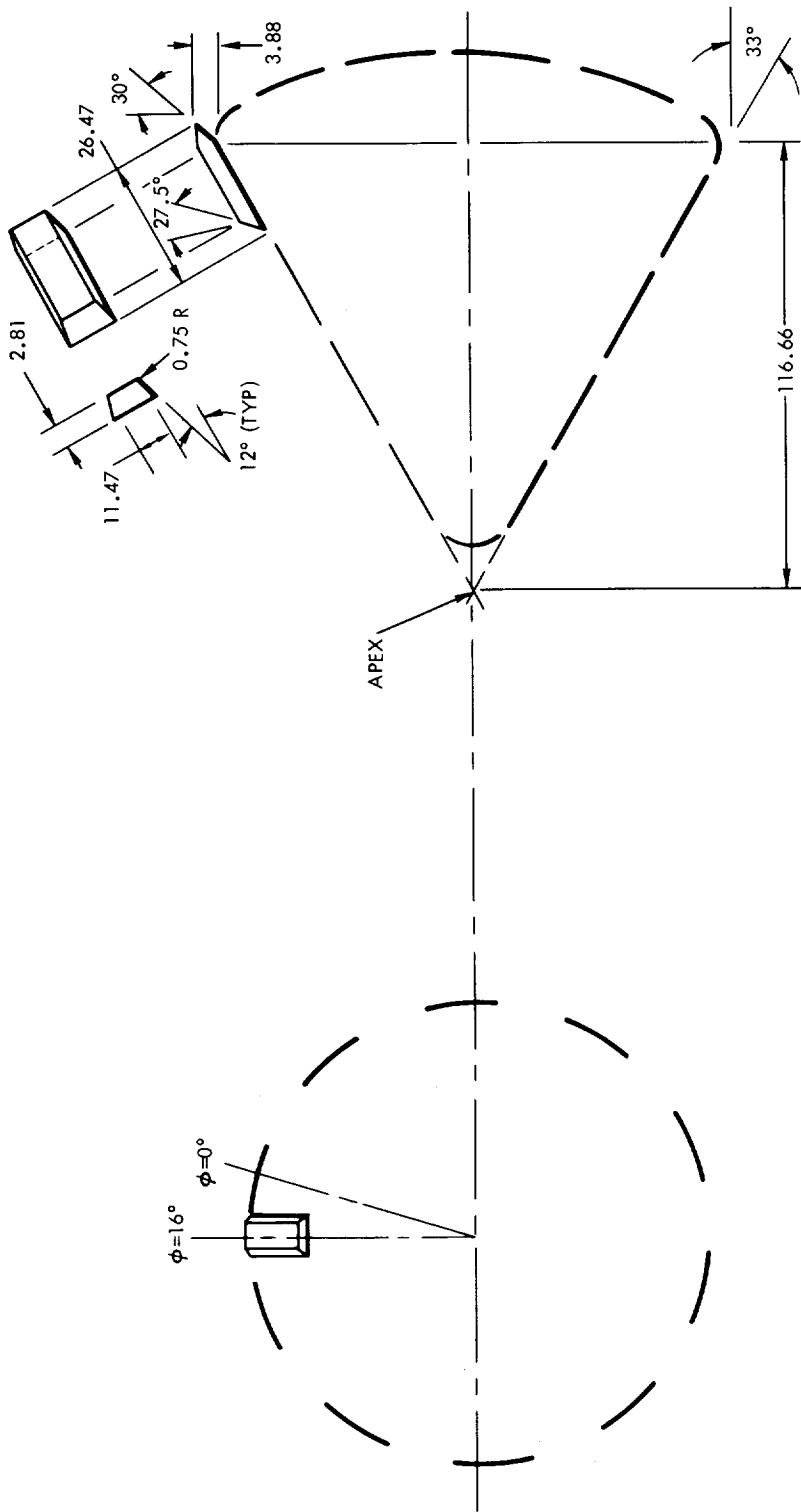
BOUNDARY LAYER TRIPPER C<sub>2</sub>

DRAWING NOT TO SCALE



## Apollo Wind Tunnel Model Nomenclature

Symbol	Description	Test Engr	Model	Drawing No.	Test No.	Pretest and Data Reports
u	Umbilical Fairing - Located on the command module surface. Aft end of fairing (at fairing-command module tangent point) is located 116.66 in. aft of the module apex. Radial location, $\theta = 16$ deg. Command module nose cone semi-angle = 33 deg. (See sketch for dimensions)	J. S. P. B.	FS-10	7121-01277-14	TWT-103	SID 64-415



DRAWING NOT TO SCALE

## UMBILICAL FAIRING U

FULL-SCALE DIMENSIONS IN INCHES